WAPANUCKET NO. 6

AN ARCHAIC VILLAGE IN MIDDLEBORO, MASSACHUSETTS

BY

MAURICE ROBBINS, DIRECTOR

PUBLISHED BY THE COHANNET CHAPTER
MASSACHUSETTS ARCHAEOLOGICAL SOCIETY, INC.

WAPANUCKET #6.

AN ARCHAIC VILLAGE IN MIDDLEBORO, MASSACHUSETTS

by

MAURICE ROBBINS, DIRECTOR

DEDICATED BY THE COHANNET CHAPTER TO THE MEMORY OF

PAUL J. TURBERG

A MAN OF GREAT ENERGY, ENTHUSIASM, AND INTEREST

A COMRADE FOR WHOM THIS WAS THE LAST "DIG".

PUBLISHED BY THE COHANNET CHAPTER

MASSACHUSETTS ARCHAEOLOGICAL SOCIETY, INC.

WAPANUCKET #6 AN ARCHAIC VILLAGE IN MIDDLEBORO, MASSACHUSETTS

Maurice Robbins

PREFACE

The Cohannet Chapter of the Massachusetts Archaeological Society was organized in the spring of 1952. Soon after its organization the writer was invited to become its director of field work with the intention of excavating in the spring of 1952 as soon as weather permitted.

Some of us were aware of the work which had been done by the Middleboro Archaeological Society at Assawompsett Lake during the period between 1939 and 1947. The dislocations attendant upon the war had caused this society to disband and we decided to attempt to carry on the investigations which they had so ably started. Fortunately Mr. Howard C. Mandell, Superintendent of the Water Department of the City of New Bedford, which owned the area in which we wished to excavate, was a member of our Chapter and through his good offices the necessary permission to trespass and to excavate was obtained. As several of our members had formerly been members of the Middleboro society we fell heir to the records which that group had kept of their work at Assawompsett.

We can attest to the excellence with which the Middleboro Society recorded the information which they obtained. With little or no professional advice they had carried out their investigations in an orderly and scientific manner. Their records are of great value to us in our efforts to continue their work.

The excavations of the Cohannet Chapter have been confined to the northern shore of Assawompsett Lake between the Nemasket River and Owl Swamp, in the area known locally as Lakeside. Several sites have been excavated as shown on a plan which accompanies this report. Wapanucket #1 is at some distance from the lake shore, on the western perimeter of the high land bordering the swamps which lie along the course of the Nemasket River. Our work at this site revealed the pattern usually found at sites in this area. On the upper level materials considered as belonging to the Ceramic-Agricultural or late Woodland Period were found. Two inhumation burials accompanied by ceramic pottery and metallic objects attested to contact with European cultures and a number of artifacts evidentally obtained in trade with Europeans and found in various squares served to identify the horizon. Although some lithic specimens were recorded from lower levels and seemed to indicate an earlier occupation we found it impossible to locate a definite horizon below the historic.

Wapanucket #2-A is adjacent to a site excavated by the Middleboro Society on the seventy foot contour facing the shore of the lake. Again we found an upper horizon which was obviously of late provenience but

containing a number of artifacts which could have been from an earlier occupation. At one point on this site our excavations revealed a large depression which seemed to have been a sort of valley between adjacent sand dunes. The long axis of this depression was at a right angle to the shore of the lake in the direction of the prevailing wind. Our notes indicate that we attained a depth of approximately nine feet before the bottom of the depression was reached. Indian pits were superimposed one over the other throughout the whole of the depression. It is quite evident that this depression was occupied during the period in which it was gradually filled by wind-blown soil. There were very few artifacts in the pits but those recovered indicated that the lower pits were from an Archaic period while trade goods from some of the uppermost pits identified them as from the Ceramic-Agricultural-Historic or Late Woodland Period.

At Wapanucket #2-B the conditions found at Wapanucket #1 were repeated. However, the discovery of a large hearth, nearly ten feet in diameter, carefully paved with stone and containing several wheel-barrow loads of charcoal, posed a question. Any number of guess explanations were offered including clam bakes and ceremonial feasting but no satisfactory explanation of this feature could be offered at the time.

Wapanucket #3, at some distance from the shore of the lake, proved an interesting and productive site. The upper level again produced the usual Ceramic-Agricultural-Historic or Late Woodland complex of artifacts and an illusory suggestion of a more ancient culture continued to appear both intermixed in the upper levels and at lower levels. Post molds were found in profusion but no definite patterns could be discerned. A number of ceremonial deposits containing red oxide and implements were discovered at this site. Some of the deposits were demonstrably of historic provenience as they contained metallic artifacts of surprisingly modern appearance. (1) Other, very similar deposits contained only lithic material and may have been deposited at an earlier time. Here again it was not possible to separate the components present with any degree of accuracy. However, one artifact of some significance, a fluted point, was found in situ on what appeared to be an Archaic horizon. A series of hearths, at some distance from the fluted specimen, were carbon dated at 4,320 ± 250 years ago (U.S.G.S. sample #W.-363). Since excavating at Wapanucket #3 a number of small tools which appear to be from a paleo occupation, one of them the base of a second fluted point, have been recovered from the surface of the beach. This has led to the thought that the first fluted point mentioned above may also have been found on the beach by the archaic inhabitants and redeposited by them on the archaic horizon at Wapanucket #3.

Wapanucket #4 produced a fair number of very interesting specimens but no definite horizons could be located and it was not possible to separate the intermixed components in a satisfactory manner. Several ceremonial deposits with red oxide and trade goods occurred at this site.

At Wapanucket #5 lithic specimens were quite scarce, however, several excellent examples of stone work were recovered and ceremonial deposits similar to those found at Wapanucket #3 and #4 were in evidence. A second large hearth very similar to that reported from Wapanucket #2-B was found in this area. In this instance, however, the problem was further confused by the presence within the heavy charcoal content of a number of human bones and several implements which had been affected by the fire.

(Fig. 4.) Speculation as to the purpose of these large hearths was expanded to include the possibility of canabalistic traits.

We had now devoted some years to the work at Assawompsett Lake and, although many interesting discoveries had been made and a respectable quantity of artifacts recovered, we were still unable to separate the material into cultural entities of demonstrable provenience. In other words there was nothing to warrant publication as we had nothing to report that was not already available in the literature.

In the spring of 1956 a number of test squares were excavated in the area now known as Wapanucket #6. As these tests indicated the presence of occupation the usual grid was established and controlled excavation began. As the artifacts began to accumulate it became noticeable that there were among them none of the elements which we considered diagnostic of a late occupation. The material seemed to present a distinct archaic impression. It was, of course, far too early to take this trend seriously, but it was sufficient to stimulate our interest. Post molds had begun to appear and moreover to form patterns of a new and unfamiliar shape. As the weeks passed and the lithic sample maintained its archaic character we began, almost unconsciously, to speak of this as an Archaic site. In our saner moments, however, we had our doubts. The majority of the artifacts, the tops of the pits, hearths, and post molds were appearing at about the same depth at which the late components had been found at the other Wapanucket sites. Many perplexing questions arose. How was it possible for these evidences of an ancient occupation to have been preserved with so little disturbance over so long a time? Why was this location free from all evidence of the historic occupation so prevalent in the immediate neighborhood? Were we to abandon the concept so firmly fixed in our minds that, because of the economic limitations imposed by a hunting-fishing-food gathering economy no permanent houses or large villages could be expected at archaic levels? A sufficient body of data exists to indicate a widespread occupation of the area in respectably ancient times. The radiocarbon date obtained by us at Wapanucket #3 was proof enough of the presence of aboriginals at Assawompsett at a very early period. A discovery such as this had been predicted by Frederick Johnson who in 1949 wrote (2):

> "Because of their relation in respect to sea level and the deposits which surround them, the stakes of the fishweir are indisputable evidence of the earliest event in the human history of Boston. However, if the matter were to be argued in court it would be a case of corpus delecti. We know nothing concerning the people who cut and drove the stakes. Our ignorance may not be permanent however for, as Judson has pointed out, future excavations on the shores of ancient Back Bay may well bring to light the habitation sites and some details of the culture and way of life of these early New England fishermen. In the meantime, some inferences of anthropological nature are of significance. If we may assume that several fishweirs existed, it follows that an aboriginal community of some size and permanence was established along the shores of the ancient Back Bay. It is impossible to conceive that this community existed in a vacuum. New England, and by implication the northeastern part of North America, was the home of an established population at this time. It is disquieting to realize that some patently early but as yet undatable communities which have been found by archaeologists may well have

been inhabited by cousins, uncles, or grandfathers of the fishweir builders."

In spite of the accumulating evidence the fear that we might be the victims of wishful thinking still plagued us. The thought that somehow we were allowing our very natural desires to influence our judgement persisted. We opened the season of 1957 in "fear and trembling" lest our theories be shattered by the sudden appearance of contradictory evidence. One possibility suggested itself. If we were to find someone with the requisite knowledge and experience who would excavate a sufficient sample of the site his findings would substantiate or disprove our assumptions. Accordingly we invited Dr. William A. Ritchie, Archaeologist of the State of New York, to pay us a visit. Dr. Ritchie, kindly, interrupted a busy field season to accommodate us. During August of 1957 Dr. Ritchie with his son Galen, assisted by some of our regulars, excavated an area in the center of our grid including the greater portion of Lodge #5 as well as several pits and hearths. His findings agreed precisely with ours. From one of these pits Dr. Ritchie took a carbon sample which is mentioned later in this report. We were delighted to learn that Dr. Ritchie was satisfied with our theory that the site was assignable to some part of the Archaic Period.

During the 1958 season we continued our excavations at Wapanucket #6 without producing any evidence which was contrary to our previous data. Seven lodge floors appeared on our progress charts at the close of the season and excavations had proceeded sufficiently in all directions to indicate that the entire village area had been located.

Attleboro, Massachusetts
July 1959

ACKNOWLEDGEMENTS

This section of the Wapanucket report has been most difficult to write. I must find adequate words in which to express my thanks to the members of the Cohannet Chapter for their loyal support and then I must express the sincere appreciation which we all feel to the many who have given valued assistance in their fields of special knowledge.

When I look back over the past seven years which we spent at Wapanucket I am amazed at the energy and the interest displayed by the chapter members. I have been at Wapanucket with them in the early spring when the wind which blew in off the lake still held the chill of winter and in the heat of summer when the dust rose so thick and penetrating that the noon sandwiches were salted with grit. Cold, rain, or blistering heat seemed to make little difference to them. Had this been an especially productive site, had every day's labors been rewarded by a number of implements or pot sherds, one might have assumed this to be the basis of their interest. But at Wapanucket #6 implements are few and apt to be of poor quality; square after square produced nothing but uncollectable post molds; day after day passed without recording a single worked fragment of stone. Yet their interest did not flag. One must recognize the fact that this group has achieved an appreciation of the more subtle rewards of excavation and that their desire to collect implements is exceeded by their satisfaction in making a contribution to our knowledge of the past. Their ability to grasp the greater significance of Wapanucket #6 is indicative of the progress which they have made in their study of the science of archaeology.

There are also those who by their presence and encouragement have made a very definite contribution to this work. The wives who seldom complained of work neglected about the house and yard, who stifled the vacation urge to spend the day at the beach but were content to come and sit in the woods at Assawompsett are entitled to a large share of the credit.

To Mr. Howard C. Mandell, a member of our Chapter and a past president of the Massachusetts Archaeological Society, we owe a special debt of gratitude. In his official capacity as Superintendent of the Water Department of the City of New Bedford, he obtained for us the necessary permission to trespass upon and to excavate wherever we desired on the property of the city at Assawompsett. In addition to this signal service, Mr. Mandell has shared with us the facilities of the summer cottage which he occupies during the summer. Our comfort has been greatly enhanced by the use of this property. Many an inclement day has been spent in the shelter of Howard's house and many an interesting and profitable discussion has developed about his kitchen table. His abilities as a civil engineer and his wise counsel has always been at our disposal and we have made free use of all. Our heartfelt thanks go to this good friend and comrade. We are also grateful to many friends among those who spend their summers at Assawompsett. They have endured patiently the commotion attendant upon our endeavors and have encouraged us by their interest.

Dr. William A. Ritchie, Archaeologist of the State of New York, has

made a great contribution to the work at Wapanucket #6. During the summer of 1957 Dr. Ritchie, with Mrs. Ritchie and their son Galen, took time out of a busy season to spend ten days with us at Wapanucket. During that period Dr. Ritchie and Galen, with the assistance of several of our members, excavated an area including Lodge floor #5. In addition to this field work Dr. Ritchie secured for us several technical services including the processing of a radiocarbon sample which he took from a pit adjacent to Lodge floor #5. We are most grateful for his help and encouragement. His contributions are significant in indicating the possibility of fruitful cooperation between professional and amateur archaeologists.

We have also found in Dr. John O. Brew, Dr. William Howells and Dr. Walton C. Gallinat of Harvard University the same willingness to help. These gentlemen have assisted by identifying materials within their respective fields and have offered encouragement by their approval of our efforts.

Mr. Rathbun Willard, a silent partner in many projects in addition to the Wapanucket excavations has continued his interest and his material contributions without which we would have been unable to carry out this study. Our indebtness to him is difficult to express; mere words are so inadequate in this respect.

Archaeology and geology are necessarily associated in any endeavor such as this and we have indeed been blessed by the assistance which has been so freely given us in this regard. Dr. Richard J. Lougee and Mr. Arthur C. Lord Jr. of Clark University, Worcester, Massachusetts spent many days surveying and studying the terrain about Assawompsett; the results of their work is self evident in the body of this report and in several of the maps which accompany it. We are also indebted to Mr. Paul Huffington of the Massachusetts State Teacher's College, Bridgewater, Massachusetts for contributions from his store of knowledge concerning the glacieology of the Assawompsett area. Dr. Joseph H. Hartshorn and Dr. Phil Schaffer of the United States Geological Survey made significant contributions including the radiocarbon test from Wapanucket #3. We also wish to express our thanks to Rev. Randall L. Gibson and the Massachusetts Institute of Technology for the loan of surveying equipment which was used by Mr. Lord in his work on our behalf.

It has often been said that pictures are of much greater value than many words. The artifact drawings, which are the work of Dr. William S. Fowler, are particularly accurate and demonstrate not only the types found but the technique by which they were made. We are indebted to him for this significant contribution to our report.

I suppose that anyone attempting to compose this portion of a publication is plagued by the fear of failing to acknowledge some significant contribution. One can only plead human inadequacy and faulty memory if this happens. No one realizes better than I that without the assistance of many, this work would never have been accomplished and this report would never have been written or published. I am most grateful for the opportunity of having a part in this work.

AN ARCHAIC VILLAGE IN MIDDLEBORO, MASSACHUSETTS

HISTORY

The Wapanucket Site is located within the town of Middleboro, Plymouth County, Massachusetts, on the northern shore of Lake Assawompsett, east of the Nemasket River, on that portion of the lake shore known as Lakeside. Access to the site is attained from Route #105 at the "Upper Four Corners" by the way of Vaughan Street. (See U.S.G.S. Assawompsett Pond Quadrangle.)

The ancient town of Middleboro was the second largest town in the Old Colony, measuring from north to south over eleven miles, and from east to west, fourteen miles. (3) It contained an area of more than one hundred square miles, prior to the separation of Lakeville and the western portion of the Town of Halifax. The principal Indian settlements within the town were at Muttock on the Nemasket River, said to have been located on the "bank of a high hill on the westerly side of the river" (4); at Titicut on the Taunton River just west of the mouth of the Nemasket where "it extended along the banks of both sides of the (Taunton) river (5) and at Assawompsett Lake, probably on the southern shore on what is known as Betty's Neck in Lakeville. The English seem to have substituted the name Namasket, as it is usually spelled in contemporary records, for the Indian name Muttock when referring to this settlement.

The earliest mention of Nemasket or Middleboro appears in an account of an expedition made by Thomas Dermer under the orders of Sir Ferdinand Gorges in 1619, the year before the settlement at Plymouth. Dermer writes, "When I arrived at my savage's native Country (Tisquantum or Squanto who was acting as guide and interpreter) finding all dead, I travelled almost a day's journey westward (about 15 miles) to a place called Namasket, where, finding inhabitants, I despatched a messenger a day's journey westward to Pokonoket which bodereth on the sea, whence came two kings to see me attended with a guard of fifty armed men, who being well satisfied with what my savage and I discoursed unto them, and being desirous of novelty, gave me consent in whatsoever I demanded." On this journey Dermer is said to have rescued two Frenchmen who had been wrecked somewhere along the coast some years before, one of these survivors was found at Nemasket. (6)

Middleboro is situated at the cross-roads of the pre-colonial era. It is said that the name of the town was derived from the fact that it was located half way between Plymouth and Massasoit's village on Narragansett Bay. It is possible to trace the routes of several of the Indian paths which crossed the town. There were two paths to Patuxet (Plymouth) both of which started at the "wading place" on the Nemasket river. The Lower Path ran along Main Street, northerly to Plymouth Street which it followed, and crossing the Winnetuxet near Waterville, proceeded to North Carver. The Upper Path paralleled the Lower Path about two miles to the south, crossing Woods Brook north of Asnemscusset Pond, from where it swung northward to rejoin the Lower Path at North Carver. From hence the reunited paths continued to run easterly, crossing the Mahudsett River and, passing south of Darby and Clear Ponds, crossed Sparrow Hill into

Patuxet (Plymouth). The bounds of Five Men's Purchase was later defined by the Lower and Upper Path to Plymouth. (7) The Taunton or Cohannet Path also originated at the "wading place" and, passing Joses Meadows to the south, it followed the present Taunton Street to Cohannet. (Taunton) The Titicut Path started at the fording place on the Taunton River (Pratt's Bridge). Passing Fort Hill on the west, it turned easterly a bit south of the Congregational church and followed Plymouth Street, crossing the Nemasket in the vicinity of the Purchade school, to connect with the Lower Path at the "Green". The Rochester Path began at the junction of the Titicut Path and the Lower Path; passing Barden's Hill to the south, it probably followed Wood and Walnut Streets through the Wapanucket neighborhood to Marion Road, paralleling the eastern shores of Assawompsett, Pocksha, and Great Quitticas Ponds into Rochester. The Dartmouth Path originated at the village of Muttock, crossed the Nemasket at the "wading place" from whence it ran westerly to Main Street, passing north of Assawompsett to Bedford Street where it turned south along the shore of Assawompsett to a point just north of Long Pond where it turned toward the southwest along Highland Road to Canedy's Corner and thence to New Bedford. Probably, at least in colonial times, the Rhode Island Path was the most used of all these trails. Leaving the Dartmouth Path near Assawompsett, it ran to the northeast between Elder's Pond and Loon Pond following the high land to Myrick's and through Assonet Village to Mount Hope. The path to Acushnet left the Dartmouth Path near Sampson's Cove, crossed the little river between Long Pond and Assawompsett and, following the high land along the Assawompsett shore, skirted along the base of Betty's Neck, following Bedford Street to Acushnet.

There can be no question but that the southern portion of Middleboro about the ponds, and most of Lakeville, lay within the domains of the Wampanoags or, as Gookin would have us say, the Pokonokets. (8) The many deeds uttered by sachems of the political group and recorded in the Book of Indian Deeds at Plymouth, bear eloquent witness to their proprietorship. However, by the same token, a number of deeds to land in North Middleboro, especially about Titicut, indicate that this portion of Middleboro was claimed by sachems of Massachusetts persuasion (9) (10).

In 1621 Namasket (Middleboro) is again mentioned by an historian (11) in connection with a journey by Stephen Hopkins and Edward Winslow to visit the Great Sachem Massasoit at Pokonoket. Leaving Plymouth on the 10th of June about nine o'clock in the morning, laden with presents for the Indians at Pokonoket, with the loyal Tuspaquin as guide and interpreter, they set out, probably by the Lower Path, "our guide resolving that night to rest at Namasket, a town under Massassayat, and conceived by us to be very near, because the inhabitants flocked so thick upon every slight occasion amongst us; but we found it to be some fifteen English miles. On the way we found some ten or twelve men, women and children, which pestered us, till we were weary of them, perceiving that (as the manner of them all is) where vitual is easiest to be got, there they live, especially in summer; by reason whereof our Bay affording many lobsters, they resort every spring tide hither; and now returned with us to Namasket. Thither we came about three o'clock after noon, the inhabitants entertaining us with joy; in the best manner they could, giving us a kind of bread called by them "mazium" and the spawn of shads, which they got in abundance, in so much they gave us spoons to eat them, with these they boiled musty acorns, but of the shad we ate heartily. After this they desired one of our men to shoot a crow, complaining what damage they sustained in their corn by them, who shooting some forescore off and

killing, they much admired it, as other shots on other occasions. After this Tisquantum told us we should hardly in one day reach Pokonoket, moving us to go some eight miles further, where we should find more store and better victuals than there".

Captain Dermer tells us that when he visited Patuxet, the native village of Tisquantum, the Indian guide of Winslow and Hopkins, they found Patuxet deserted, all of the inhabitants having died in the plague which had recently visited the area. Goodwin says in this regard "the devastation wrought by the disease was horrible ---- and strange to say, the Namaskets, who were in the center of the path followed by the pestilence, were spared, the deluge of death dividing at this point and depopulating the country on each side of them." (12)

Scarcely a month after the Winslow-Hopkins journey through Nemasket, Plymouth sent another delegation to visit that village on a less friendly mission. A rumor had reached Plymouth that the Narragansetts had assumed a threatening attitude toward their ally Massasoit, and that the Pokonoket warriors were assembled in force to counter the threat. Tisquantum and an Indian named Hobomock were sent to find out the truth of this rumor. Intending to spend the night at Namasket the two Indians came to that village only to be seized by Corbitant, a sachem who was not especially friendly toward the English and who regarded the two Indians as renegades. Hobomuck succeeded in escaping from his enemies and fled in haste to Plymouth with the news of Tisquantum's capture. Standish with his "army" set out immediately for Nemasket and, arriving in the dead of night, surrounded the wigwam in which Corbitant was said to be holding Tisquantum. A brief scuffle ensued in which three Indians were wounded. However, it developed that Corbitant, probably forseeing the result of Hobomuck's escape and flight to Plymouth, had changed his mind about Tisquantum and departed some hours before. Taking the wounded Indians with him in order that they might be treated by Dr. Fuller, Standish returned to Plymouth.

The following January the colonists were purchasing corn from the Nemasket Indians (14) and in March, Edward Winslow again made Nemasket a stopping place on a journey to Pokonoket to visit Massassoit who was said to be very sick and in need of medical help (15).

Sir Christopher Gardner was probably the first English resident of Middleboro. In 1663 he is reported as living with the Indians at Nemasket. Some years before, Gardner had incurred the wrath of the authorities of the Bay Colony and fled to Nemasket to escape arrest. He is said to have been seized by the Indians, when they learned that he was wanted in Boston, and delivered to Winthrop, who sent him to England to answer certain charges which were pending against him there. (16)

It is quite evident that Nemasket or Middleboro, as it was known at a later date, was well known to the colonists from the first settlement of Plymouth. All of their journeys to the west took them through that town and it was a convenient stopping place about a day's journey from their settlement. Weston says, "until about ten years before the Twenty-Six Men's Purchase (or until about 1651) there were probably no permanent residents (English). (17) However, as the area was counted as a part of Plymouth until the incorporation of the "Town of Middleberry" in 1669, it is difficult to support this statement; anyone residing in the area of Nemasket would have been listed as a resident of Plymouth prior to 1669.

By 1661 the English, having consolidated their coastal settlements, turned their attention to the west. During the following twenty years nearly all of the territory now included within the towns of Middleboro and Lakeville was purchased from its Indian owners. A study of the deeds to this vast territory reveals that the northern portion of the area was probably within the jurisdiction of the Massachusetts sachems while the southern portion, about the great ponds, was a part of the tribal lands of the Pokonokets. The following purchases, in the order in which they were acquired, are recorded in Plymouth.

NAME OF PURCHASE	DATE OF RECORD	DEED SIGNED BY
Twenty Six Men's Purchase	March 7, 1661	Wampatuck (Massachusetts)
Purchade Purchase	July 9, 1662	Wampatuck (Massachusetts)
Major's or Five Men's Purchase	July 13, 1663	Tuspaquin (Pokonoket)
Great Men's Purchase	November 13, 1663	Tuspaquin (Pokonoket)
Little Lot Men's Purchase (Little Allotment)	August 16, 1667	Wampatuck (Massachusetts)
Wood's Purchase	August 9, 1667	Tuspaquin (Pokonoket)
Twelve Men's Purchase	June 30, 1672	Tuspaquin (Pokonoket)
South Purchase	July 23, 1673	Tuspaquin (Pokonoket)
Sixteen Shilling Purchase	May 14, 1675	Tuspaquin (Pokonoket)

Weston has given us a neat little map purporting to show the boundaries of the above purchases but a close examination of the deeds and a consideration of the many small, and often undated, purchases which Weston says are "Lying between the ones mentioned" makes it obvious that his map leaves much to be desired. The transitory nature of the bound marks described in these ancient documents, and the survey errors that must have been made in those days, make it difficult to construct an accurate map at the present time. However, some of these land transfers which are alluded to above are of interest in this historical background, and must be referred to in some detail. For a discussion of the major purchases the reader may turn to the Bulletin of the Massachusetts Archaeological Society. (18)

The Wapanucket sites, which are the direct subject of this report, are located within the bounds of Twelve Men's Purchase which is dated June 30, 1672, only three short years prior to the outbreak of Phillip's War (19). It has been said that this land was conveyed in consequence of a debt which William, the son of the sachem Tuspaquin, had failed to pay. There seems to have been a number of creditors involved, among whom were Major Winslow and George Vaughan, a tavern keeper of Plymouth. Major Winslow entered a complaint at the Plymouth Court in this regard and that body allowed him to make the purchase in consequence directing that from the proceeds the proprietors should pay all of the indebtedness of the Indians. The names of the creditors were George Vaughan, Jonathan Nelson,

Edward Gray, John Wood, Gershom Cobb, John Dunham Jr. and Major Winslow. (20) Of these, George Vaughan is of some interest as he was the owner of the land on which the Wapanucket site is located.

Twelve Men's Purchase was a triangular parcel of land bounded on the west by the Nemasket river, from its origin in Assawompsett to the mouth of Fall Brook, and on the south by the great pond itself. Its northern boundary ran along the course of Fall Brook to Tuspaquin Pond, a distance of about three miles, while its eastern bound extended southerly from Tuspaquin Pond about four miles, from which point it turned northwestward to return to Assawompsett. Whenever a sizable village of Indians happened to be located within a purchase it was common practice to mention the fact and to exempt such lands from the conditions of the sale. As there is no such clause in this deed it may be assumed that this area was unoccupied by Indians in 1672. This fact is supported by the results of our archaeological study of the area. Available records indicate that the Indians of "pond country" had withdrawn to the south of Assawompsett in the face of advancing English occupation, and that their principal settlements of the period immediately preceeding Phillip's War were in South Middleboro and Lakeville and the towns of Rochester, Acushnet, and Sippican.

We must now turn our attention to some of the land records, referred to above, which have not been considered in Weston's map of ancient Middleberry and Lakeville. The first of these ancient and time worn documents which mentions the sachem who preceeded the well known Tuspaquin (otherwise known as the Black Sachem) appears in the Book of Indian Deeds. (21)

"THE LAST WILL AND TESTAMENT OF PAMANTAQUASH ALIAS THE POND SACHEM"

Witness these presents that Pomotaquash the Pond Sachem being weak in body but of perfect disposing memory declareth it to be his last will and Testament concerning all his lands at Assawompsett or elsewhere that he is now possessed of, that he would after his decease leave unto his --- Tuspaquin alias the Black Sachem, for his life and after the said Tuspaquin, his decease, unto Soquontamouk, alias William his sonne and to his heirs forever and desired several of his men that were then about him to take notice of it and be witnesses of it should he not live himself to do the writing under his own hand.

The Indians that were present here unto subscribe:

Pemohut his mark alias Joseph	Wasako his mark alias Harry
The mark of Sam Harry alias Matwatacka	Felix his mark alias Nanauatauate

The land that the said Pamataquash challenges, the names of the places ------ said witnesses have made description ----- followeth Pachamaquast Wekam,--- Nekatatucouck, Setnessnett, Anec --- path that goes from Cushnet to ---- goes through it: Wacagasaness: Wacom ---, Quamakeckett, Tokopissett, Maspeun ---, Wampaketatekana, Caskakachesquash, Waehpusk, ester side of ye pond: --- Pachest; soe or Namaskett rieur Passamusatuate.

Harry and his sone Sam Harry, desires that neither Tuspaquin nor his sonne

be prest to sell the said lands --- by any English or others whatsoever. The lands mentioned which Tuspaquin possesseth, Ha --- Wosoko wch is long as he lives.

29 October 1668

Witness,

Wapetoun, his mark

Wasmukesett, his mark

Despite the "desire" of Sam Harry and his friends, Tuspaquin appears to have been "prest" as by 1673 he had disposed of the greater part of his inheritance. Possibly in an attempt to relieve some of the pressure, or to divert some of the wrath of his subjects, Tuspaquin transferred some of his lands, by deed or gift, to other Indians. Some time in 1673 Tuspaquin and his sone William, made a deed or gift in favor of an Indian called John Sassamon, alias Wassaowan for twenty-seven acres at Nahteawamet on what is now known as Assawompsett Neck in Lakeville, and on March 11th of the same year they conveyed fifty-eight acres in the same area to the son-in-law of Sassamon, the Indian named Felix. On December 3, 1673, Tuspaquin now known as "Old Tuspaquin" gave land to an Indian woman named Assawetough or Betty. This last parcel has since been known as Betty's Neck.

Without some mention of Phillip's War no review of the history of this area would be complete. One of the overt acts which resulted in the outbreak of hostilities occurred within the limits of Middleboro (now in Lakeville). The sachem, Tuspaquin, who was probably the son of Pamantaquash, the so called "Pond Sachem", by his wife Mionie (Amie), a daughter of Massasoit, and a sister of Wamsutta(Alexander),had a son named Benjamin, who had as his wife Weecum.

Benjamin and his wife Weecum, had a son who was also called Benjamin who married an Indian woman, Mary Felix. Mary Felix, was the daughter of Felix and Assawetough, called Betty by the English. Now Assawetough was the daughter of John Sassamon and her mother is said to have been the daughter of a Pequot sachem known as Sassacus.

John Sassamon was born a Massachusett Indian and had, at one time, been a student at Harvard College in Cambridge. It is said that he served with the English in the Pequot War during which service he acquired his Pequot wife (22). We have noted above that this John Sassamon received a grant of land from Tuspaquin in 1673. At that time Sassamon was preaching to the Indians in that area and Weston believes that this land was given to him to encourage him in this work. While thus engaged Sassamon learned of the dissatisfaction which was current among the Pokonoket Indians because of the manner in which they were being treated by the Plymouth government. It has also been said that Sassamon was serving Phillip as a sort of interpreter and ghost writer and, if so,he would have been informed of the plans of that sachem. Sassamon made his way as secretly as possible to Plymouth and there acquainted the Governor of the plans of the Indians. The reactions of the Plymouth government revealed to Phillip that they had become aware of his intentions, and suspicion immediately fell upon John Sassamon. Shortly Sassamon was missed from his usual haunts and a search resulted in the finding of his body beneath the ice in Assawompsett. Three Indians, Tobias, Wampapaum and Mattushaman, were arrested and charged with the murder. The three were tried,

convicted, and executed. The Indians were quite naturally incensed at this application of English law to their people, who were doubtless only carrying out the orders of their sachem. Death is the usual sentence of a traitor. This event precipitated the war which Phillip had not intended to undertake until he was much better prepared. Tuspaquin, the Pond Sachem and a brother-in-law to Phillip, was, from the beginning of the war, one of his most loyal and competent leaders. He took to the "war path" immediately, and his lands at Assawompsett, through which the trails from Plymouth ran to the south and west, became hostile country. At the head of about three hundred of his warriors, Tuspaquin led the attack upon Scituate, April 20, 1676, and, quite probably, it was this same band which had burned Bridgewater on April 9th. On the 8th of May, Tuspaquin returned to Bridgewater and completed the destruction started a month earlier. During July of 1676, Tuspaquin had a slight skirmish with Captain Benjamin Church. Meeting Church's forces just in the dusk of the evening as they were crossing the little stream which connects Long Pond with Assawompsett, the Indians attacked. After a brief exchange, both parties withdrew and Church prudently took another path to his destination. In September, Church captured several of Tuspaquin's band including his wife and children. He freed two old squaws who were instructed to offer amnesty to Tuspaquin if he would come into Plymouth and surrender himself to Church. As Phillip his leader had been killed some time before this, and as the Indian cause was obviously lost, Tuspaquin accepted this promise and surrendered to the English authorities at Plymouth. In spite of the promise of one of their chief captains, the English government chose to execute Tuspaquin. Thus perished Tuspaquin the Pond Sachem of Assawompsett. Whether or not the wife of Tuspaquin, whom Church claimed to have captured at Sippican, was Mionie or Amie, the daughter of Massasoit and the sister of Phillip, is uncertain. Polygamy was not uncommon among the Indians and it would seem that if this captured squaw was indeed the sister of Phillip, the English would certainly have been greatly elated. Some of the many contemporary historians would have mentioned the fact.

William or Mantowapact, the son of Tuspaquin, would, under ordinary circumstances, have succeeded to the sachemship, upon the death of his father. His fate is however unknown. He can be traced up to about May of 1675 but after that date he disappears and it must be presumed that he was among the Indian casualties during the first year of hostilities. The second son Benjamin survived the war. He sided with the English, served with them in many battles, and was severely wounded (23). As a reward he was permitted to retain the family lands at Assawompsett and died there some time after the war. From Benjamin and his wife Weecum a long line of descendants are known. Some of them occupied the lands at Betty's Neck until the death of Teeweelema (Melinda Mitchell) in 1928. (24)

I know of no better manner in which to close this brief review of the history of the Assawompsett Indians than to quote the words of their great sachem Wamsutta (Phillip) as they are recorded in a communication to John Borden of Portsmouth, Rhode Island (25). "My father (Massasoit) relieved their distresses in the most kind and hospitable manner. But others came with fire arms and the Indians became alarmed. His counsellors advised him to destroy them before they should become too strong and it should be too late. My father told them that the English improved the land and that there was room for both. His advise prevailed. Experience has proved his counsellors were right. I am determined not to live until I have no country. They tried my people by their own laws, assessed

damages they could not pay. Then I am held responsible. I must then be seized and confined till I have sold another tract of land. Thus tract after tract is gone." In this short statement Phillip has summed up the case of the Pokonokets.

GLACIAL BACKGROUND OF THE ASSAWOMPSETT AREA (26)

As a result of glacial action the surface of the land in Southern New England has been greatly altered. Valleys have been deepened and the hills have been rounded by the scouring action of the ice. Till was deposited in sheets known as ground moraine and in hills known as recessional moraines. The deposition of glacio-fluvial sediments is also well understood in accounting for conspicuous additions to the landscape.

Lesser known and much more subtle changes in the land's surface has been produced by land movement following the removal of the weight of the ice. Notable changes in the drainage pattern occurred when the land was uplifted and the lakes and the seas drained away. In some cases rivers were formed where no rivers had flowed before. As the gradient of still other rivers was reduced, swamps and ponds were formed and, in extreme cases, tilting of valleys caused drainage to flow in the opposite direction.

In the region of Southern New England the uplift has been greatest to the north and therefore the valleys that drain north have had their gradient lessened and/or reduced whereas the southward draining valleys have had their gradient greatly increased. Valleys that hold lakes have been emptied, and today are drained by southward flowing streams.

In the Acushnet Lowland a pond behind a moraine and fan was emptied, and a channel was cut through the obstruction as the gradient of the river was greatly increased by the uplift of the land. As with all southward sloping valleys this valley is today well drained and lacks the swamps and ponds, except man-made, so characteristic of Southeastern Massachusetts.

After the Assawompsett glacial lake was drained, the silts and clays which settled to the bottom of the lake, were exposed to the air and dried. Powerful periglacial winds from the southwest blew these fine sediments up into huge dunes on the northeast side of the old lake bottom. One of these dunes, locally called Lakeside, (the site of Wapanucket #6) stands thirty feet above the valley floor and is over a mile across. It is composed of sandy materials without gravel and is intermixed with redeposited glacial lake bottom sediments. After Hubbard Uplift occurred and the land was tilted, the northward draining Lakes Lowland lost gradient until their headwaters filled up with water so that the Assawompsett Lakes were created. These shallow lakes, ten to twelve feet in average depth, were formed as a direct result of the upwarping of the land causing water to back up in the wind-formed blowout in the headwaters of the valley. The surface area of the lakes has now been reduced as peat accumulated around the edges of the water body. The Assawompsett lakes are now separated by swamps from the Middleboro moraine whereas they were originally extended to the moraine. In the northern part of the lowland, peat as deep as twenty-eight feet has been exposed in recent road construction. Under ordinary conditions the Nemasket River would no doubt have eroded back to its headwaters and drained the lakes but for the fact that when the outlet stream, the Nemasket River, first began to flow, it crossed a conglomerate outcropping east of Middleboro. On this

local base level the Nemasket River has balanced as the land was uplifted differentially. Tilting has raised the lakes to the lowest passes in the morainal watershed, Lakeville Moraine, so that the lakes actually can drain both to the south and to the north, in times of high water. As peat filled in the northern part of the originally larger lake, the outlet river became longer and now meanders in and out of swamp deposits and has a very gentle gradient. This filling of the pond with peat, and the meandering river, has caused the lake level to be raised the approximate fifty feet elevation of the dam site to the lake's normal elevation of fifty-four feet today.

When the Leverett Sea was eliminated by the Hubbard Uplift a new drainage system was created and rivers flowed across the sands and the clays of the South Bridgewater Plains. This new system became the north branch of the Taunton River or the Town River. This river has intrenched itself in these clays and sands and flows west and then south to Narragansett Bay. In passing through the moraines the river has made use of earlier melt-water river channels, and obviously has deepened those channels.

Northwest of Bridgewater Center there is a very large area of swamp. Hockomock Swamp, while outside the area of this thesis, is in the drainage system described above. This depression is today almost completely filled with alluvium and peat deposits with the exception of one shallow lake, Nippenicket, at its southern end. Similarly in the area just to the north of the Middleboro Moraine, a small post-glacial lake existed temporarily closed to the moraine. This has since been filled and replaced by Meetinghouse Swamp.

Note - The above section entitled " Glacial Background of the Assawompsett Area " was written by Mr. Arthur C. Lord Jr. and constitutes Chapter 6 of a thesis submitted by him in partial fulfillment of the requirements for the Degree of Master of Arts in the Department of Geography at Clarke University, Worcester, Massachusetts. During our work at Assawompsett we solicited the assistance of Dr. Richard J. Lougee of the Department of Geography at Clarke University, and he spent several days with us examining the topography of the immediate area. Recognizing the importance to us of a detailed study of the glacial backgound of the area Dr. Lougee suggested that Mr. Lord undertake the task and that it be the subject of his thesis. Mr. Lord, who had been working with us as a member of the Cohannet Chapter throughout our investigations, made the study during the summer of 1957. He was assisted by Mr. Donald C. Peterson.

AN ARCHAIC VILLAGE

GEOGRAPHY

The Taunton River System with its many tributaries, ponds and lakes was to the aboriginal inhabitants of the area, one of the most important aspects of the economic geography of Southeastern New England.

Lake Nippenicket is located in the western part of the town of Bridgewater, Plymouth County, Massachusetts. The northern end of the lake is embedded within the eastern lobe of a great cedar swamp (Hockomock Swamp) and out of it flows a little river, called Town Brook, which is destined to great ends. After flowing northeastward for a short distance, this little river, now enlarged by the addition of Meadow Brook, starts a great curve to the east and south. After making a junction with the Matfield River, nearly seven miles to the east of its origin, the expanded stream is known as the Taunton River. Upon receiving the waters of the Winnetuxet, it alters its course slightly to the south to meet the Nemasket flowing northward from the "pond country". A few miles further on, the river turns west to pass the Indian wading place and village at Titicut, only to make another abrupt turn south and southwest through East Taunton to the mouth of the Cotley River and its first bitter taste of the sea. The waters of the Cotley River rushing in from the south seem to force the great river into a northward course against its will, but as soon as this force is spent, the river resumes its westward course until it reaches the outskirts of the City of Taunton where, as if finally making up its mind, it makes its final southward swing to start its long journey toward the sea. Receiving tributaries, now from the east and now from the west, the growing river separates the towns of Dighton and Berkley and, joining at long last with the Assonet River, it divides Swansea from Freetown on its way to empty its already brackish waters into Mount Hope Bay.

In its long wandering course, the Taunton River, with its numerous tributaries, drains approximately three hundred square miles of southeastern Massachusetts, from Attleboro on the west to Plympton and Carver on the east, and from Brockton on the north to Fall River at the south. (27) This is obviously an ancient river, its gradient is low and its flow is sluggish. The country through which it wends its way is one of low relief, rare is the hill that rises more than a hundred feet above the plain; the valley of the river is wide and many swamps and marshy meadows have developed along its sinuous course. The area is studded with numerous lakes and ponds, several of which are grouped in a cluster within the towns of Middleboro, Lakeville and Rochester, "the pond country" so prominent in Indian legend and history.

If we leave the Taunton River at the mouth of the Nemasket and proceed upstream, following its many twists and turns around the town of Middleboro, we will eventually enter Assawompsett lake, most northerly of the cluster referred to above. Assawompsett is the largest natural body of fresh water in the state; it floods some 2,200 acres. To the south and west, and connected through Long Pond River, is Apponequet (Long Pond) five miles in length and occupying nearly 1,760 acres. Three islands, each with two or more names, dot the surface of Apponequet. Pocksha Pond, the smallest of the group, lies directly south of the eastern extremity of Assawompsett and serves to unite it with Great Quittacus which spreads over 1,238 acres, part of which lies within the town of

Rochester. Great Quittacus also boasts three islands which rise out of its deep waters. Little Quittacus lies southwest of its larger namesake to which it is connected. The pumping station of the City of New Bedford is located on its southern shore; these lakes, with the exception of Apponequet, form a part of the water supply of that city.

Many swamps occur in the immediate vicinity of the lakes, especially on the south and east of Apponequet, south of Great Quittacus, and both north and south of Assawompsett. A small, spring-fed brook provides a water way between Great Quittacus and Snipatuit pond in the Town of Rochester, and this pond in turn is drained southward through the Mattapoisett River into Buzzards Bay. A few moment's study of a map of the area, and it becomes apparent that the system of rivers and lakes described constitute, as far as the Indians were concerned, a convenient and important inland water-way. In their canoes or dugouts, unimpeded by modern dams, they could readily pass from Buzzard's Bay and Cape Cod, through the forested hinterland and hunting grounds, down the Taunton River to Narragansett Bay and the Rhode Island shore, or through some of the northward flowing tributaries of the great river and over a short carry to the headwaters of one of the many small streams of the Charles River system into that important artery of the aboriginal world.

The Wapanucket site is located on the northern shore of Assawompsett Lake east of the Nemasket river and the swamps which line its banks, and west of Owl Swamp. The map (map #1) in which only the significant contour lines are shown, represents this area. Modern roads and other such features which serve only to obscure the terrain have been omitted.

In pre-colonial times the only dry-shod approach to this secluded area was from the east or northeast around the flanks of Willis Hill. From the vantage point of this elevation one perceives three diverging fingers of high land surrounded by swamp. One projects southward between Owl Swamp and Bisbee's Swamp to the east and terminates in an abrupt cliff at the lake. The sand surface of this wave cut and eroded cliff has prompted the name "White Banks"; it is a prominent feature of the landscape which can be readily located from any point on the lake. A second finger points westerly toward the Nemasket River with its southern flank resting on the lake shore, while a third swings to the northwest toward a swampy triangle formed by the junction of the Nemasket River and Fall Brook.

The narrow aperture through which one must pass to enter the last two of these peninsulas is scarcely 1000 feet in width between Owl Swamp and the swamp land which extends southward from Fall Brook. The modern road which now crosses the Nemasket, and the swamp which borders it, together with the farm buildings at the base of the northernmost peninsula, now screen the view and prevent recognition of the strategic location of the site.

It is probable that in pre-colonial times the point of origin of the Nemasket River was at some distance east of its present location. An earth dam now crosses this ancient bed and parallels the lake shore immediately west of Lakeside.

The sites excavated by the Cohannet Chapter are located approximately at the points indicated, on the second of the three peninsulas between Vaughan Street and the lake shore in the area known as Lakeside. As will be noted upon examination of the U.S.G.S. Quadrangle the Indian name of

Wapanucket has been used locally as the name of a school and to designate a cemetery. We have also made use of the term to name these sites, numbering them in the order of their excavation.

At Lakeside, or Wapanucket, the land rises rather sharply from the beach forming a bluff some twenty feet in height paralleling the shore between the swampy areas. Along the rest of the peninsula the gradient from the swamps to the crest is much less abrupt. After the seventy foot contour is reached the present surface appears to be fairly level. However, there are areas which lie at the eighty foot contour line, the gradual rise to these elevations being concealed from the eye by the forest cover. At Wapanucket #6, this maximum elevation is reached at about the center of the site. The surface of the area has evidentally been subject to considerable erosion and wind action so that it consists of a number of rather flat areas separated by gullies or small valleys, the longitudinal axis of which lies parallel to the direction of the prevailing wind and at a right angle to the shore line.

In the spring of the year the broken ice is piled up along the beach, and this, agitated by the waves and wind, is continually cutting the face of the bluff and building storm beaches along the exposed portion of the peninsula. Of late years this action has been somewhat retarded by the use of stone and cement barriers along that portion of the beach at which the summer cottages stand.

These cottages occupy the vantage point along the bluff facing south to the lake and an access road from Vaughan Street passes through a portion of one of the north-south depressions until it makes a sharp turn to the east to pass by the rear of the cottages. Immediately east of the Wapanucket #6 site this road again makes a turn to the north to return upon itself before reaching the highway. With the exception of the area immediately about the cottages, and several open fields between the lake and Vaughan Street, the land supports a second growth forest cover consisting largely of white and pitch pine mingled with oak. Here and there trees of several broad leaved varieties appear and a few clumps of white birch can be seen. In the open spaces, among the scattered trees, and in the swamps, blueberries and huckleberries abound. Broad patches of juniper stud the open spots and provide welcome cover for the small game which inhabits the area. On the northwestern portion of the peninsula a considerable stand of sassafras is found.

The entire area is known to have been under cultivation only a few short years ago. Consequently it should be understood that the present flora may have changed considerably from that of pre-colonial times. However, in view of the respectable antiquity of the Indian site, which will be explained in later sections, we should hasten to add that in all probability, there has been little change in environment in this vicinity during the last few thousand years. (28)

It is apparent that this area was an excellent site for aboriginal settlement. Its elevation above the lake and the surrounding swamps offered at once, security from seasonal flooding, and excellent drainage. A plentiful supply of potable drinking water was available near at hand. A more easily defended spot would be difficult to locate. The single dryshod approach from the northwest is provided with a ready made watch tower from which any movement in the surrounding forest would be quickly detected. Once warned, the inhabitants of the peninsula had only to hold

the narrow corridor between the swamps to the north and south to prevent an enemy from reaching their village. Except from this one direction, all who approach must come across open water and scale a steep bluff, or flounder through a dense swamp and wade sizable streams. On the other hand, these natural defensive features were of inestimable economic value to the occupants of the site. The swamps which so nearly surround the area provided excellent cover for all sorts of game and fur bearing creatures as well as producing a bountiful yearly harvest of berries and other foods. In the spring of the year the alewives and salmon could be counted upon to run up the rivers, while the lakes offered a year round supply of nourishing food. Without a doubt many wild fowl nested in the swamps or used the lakes as a refuge during their migrations. The ease with which one could travel about this area in aboriginal times should not be overlooked. It was but a short journey from Wapanucket to the sea with its resources, and the inland hunting grounds were but a short distance to the north. Heavy game need not be carried on one's back when the innumerable little streams of the "pond country" stood ready to transport the hunter as well as his load.

AN ARCHAIC VILLAGE

EXCAVATIONS

INITIAL TESTS

The results of several seasons work by the Cohannet Chapter, together with the data previously secured by the Middleboro Society, indicated that the aboriginal occupation of the area was heaviest on the elevated land facing the shore of the lake or paralleling the course of the Nemasket River. As one progressed inland, evidences of Indian occupation became less.

A fairly large and quite level area a few hundred feet north of the lake at an elevation of approximately twenty-five feet above mean water level seemed to us to possess the attributes preferred by the Indians, but there was little evidence of previous archaeological investigation. Three test squares were staked at random; one, east of the road which traversed the elevation, and two west of it, about half way between the road and a rather deep valley which flanked the area to the east.

The square east of the road was unproductive and was refilled. The first of the squares west of the road was more promising. At the base of the loam a small white quartz knife was found, and three centimeters (1 inch) below it, a broken shale drill was recovered. At a depth of twenty-one centimeters (9 inches) a broken shale projectile point came to light. Before the square had been completed the presence of a large pit was noted near its western end. This feature, later designated Pit #1 was found to be oval in plan, one hundred eighty centimeters long by eighty-four centimeters wide and ninety centimeters in depth from the junction of loam and yellow soil. (72" x 33" x 35") Its top appeared at the base of the loam. Evidence of plowing appeared over and around the disturbance to a depth of twenty-five centimeters (10"), the top of the pit having been "cut off" in the process. East of the pit, in the disturbed soil at the junction, one half of a winged-type, atl-atl weight was found. Fig. 14, #8. The content of the pit consisted of dense black soil containing lenses of red burned earth, heavy deposits of charcoal, in sticks from five centimeters in diameter to twigs, fragments of burned bark, masses of what appeared to have been pine needles, and many lumps of indurated black soil containing mica-like flakes of an unknown material. The earth surrounding the pit had been greatly affected by heat suggesting that the content had been burned in situ. At a depth of seventy-five centimeters (29½") within the pit, a peculiarly shaped projectile point of white quartz (Fig. 14, #17) was found. The third test square, located at some distance northeast of the second, was also promising. It revealed the presence of several post molds, which were later found to be a part of those composing Lodge Floor #3, as well as a quantity of burned stone fragments and a considerable amount of white quartz flake. A large argilite knife was taken from this test square. As these indications of occupation seemed promising, we determined to establish a grid for the controlled excavation of the entire elevated area.

METHODS

Examination of the surface of the area to be excavated revealed the presence of a number of modern trash pits just north of the property line. To avoid these disturbances a base line was laid out paralleling the pro-

perty line approximately twelve meters to the north. This base line runs from station A-0 to Z-0 as shown on Map #3. A-0 was located approximately ten meters west of the edge of the woods road so as to leave undisturbed a number of large trees. The precise location of station A-0 in relation to previous grids and topographic features was determined by running the survey line, indicated by the broken line, (Map #3) to a stone bound, marking the property of the City of New Bedford, situated near Vaughan Street. The elevation of station A-0 was also determined to be approximately on the eighty foot contour line, twenty-six feet above mean water in Lake Assawompsett. Subsequent discoveries indicated the necessity of excavating the area south of the base line and a grid was extended to include the area between the base line and the property line.

A grid was established by driving stakes at two meter intervals along the base line. These stakes were designated as A-0, B-0, C-0, etc. Lines at right angles to the base line stakes at two meter intervals completed the grid system. These stakes were numbered 0 - 1 - 2 - 3 together with the letter of their point of origin. As excavation was to proceed northerly it was decided that the number of the stake at the rear right hand corner of each square would be used as the designation of that particular square. Each grid the width of a complete alphabet and regardless of its length along numbered stakes, is considered to be a section to which a distinguishing letter is assigned. The entire area is called Wapanucket #6 to distinguish it from previously excavated sites in the immediate vicinity.

Record cards similar to that illustrated (Fig. 2) were provided, upon which the data accompanying each implement, post mold, or other feature was entered in the manner shown. Horizontal measurements were taken from any two of the stakes bounding a square, and vertical measurements show the depth from both the present surface and the junction of loam and yellow soil. The type of soil in which the implement was found is also an important part of the record. An outline of each implement was made in the space provided or upon the reverse of the card if more space was required. The kind of material from which the object was made was also recorded to assist in the identification of the object. The field number which appears in the upper left hand corner was added later when it was also placed upon the implement. In addition to the record cards, supplemental data was taken when ever a special feature was encountered.

Profiles of each square were taken as the northern boundary was reached and surface topography was recorded as the surface was destroyed. Supplementing these written records, numerous photographs in both color and black and white were taken of such features as post molds, pits, hearths, profiles, and significant implements.

We found that the most satisfactory method of excavation was to remove the loam by horizontal scraping, using a small, short handled hoe, until the yellow layer beneath was exposed. At, or very near, this arbitrary horizon the majority of the implements found were located, and the exposure of this surface showed clearly the presence of post molds, hearths and pits, thus determining the method by which the balance of the square should be excavated. If pits of similar features were present, vertical cuts were necessary to provide profile data; otherwise the horizontal peeling method was used until the square was excavated to an average depth of one meter, below which, experience indicated, it was useless to continue.

The above procedure was somewhat altered during the excavation of Lodge Floors #4 and #5. In exposing these two features the humic overburden was removed over the entire area of the floor in a vain attempt to locate its precise vertical position.

The director assisted in the excavation of a majority of the features in order to gain the first hand knowledge necessary to the writing of this report. Progress maps were maintained as the excavations proceeded; post molds, pits and hearths being entered as they were located. This procedure proved particularly effective as the village pattern developed. At the close of each season the excavations were refilled and the features found were relocated and marked by properly identified stakes and small signs. Thus the unfolding picture was reproduced in full scale making the site of more interest to both workers and visitors.

LAND SURFACES

Wapanucket #6 is located on the highest portion of a rather large dune adjacent to the northern shore of Lake Assawompsett.

At its southern extremity the dune presents a wave-cut front at an elevation of 54 feet above sea level at New Bedford. The surface rises abruptly from the beach attaining an elevation of 72.8 feet above sea level at a distance of 64.2 feet from the water. From this point the gradient is gentle, reaching an elevation at Stake A-0, 263.49 feet from the lake, of 78.5 feet, and at stake I-29, 453.73 feet from the lake, of 80.4 feet. From this point of maximum elevation the surface gradually drops to an elevation of about 70 feet at the main road some 1000 feet to the north.

The east-west elevation starts at Owl Swamp some distance east of Wapanucket #6 at an elevation of 56 feet above sea level and 2 feet above mean water in the lake. Rising quickly from 56 feet to the 60 foot contour line the surface then levels off to a gentle gradient which intersects the 70 foot contour line 330 feet to the west. At 600 feet from Owl Swamp at Stake A-15 the east-west profile has reached an elevation of 78.9 feet. Across the excavated area from A-15 to W-15 the surface is quite level. Starting at W-15 the profile begins to decline, passing 77.5 feet at Z-15 and reaching a low of 62.3 feet at 104 feet west of the excavated area. This low point represents the western edge of the dune. From this point the land surface again rises to 73.5 feet near the western road. This is the surface of a second dune upon which the sites known as Wampanucket #2 and #3 are located. The trough or valley between these dunes originally extended to the lake, but it is now interrupted by the western road which crosses it a few hundred feet to the south.

Heighth above sea level at the center of the several lodges is as follows:

Lodge Floor #1 - 80.0 feet	Lodge Floor #4 - 78.9 feet
Lodge Floor #2 - 79.5 feet	Lodge Floor #5 - 78.7 feet
Lodge Floor #3 - 79.3 feet	Lodge Floor #6 - 78.5 feet
Lodge Floor #7 - 79.2 feet	

STRATIGRAPHY

During the excavation of the site, a mass of data concerning stratigraphy was accumulated. These notes were taken by a number of indivi-

duals and they reflect their personal powers of observation. These are somewhat difficult to resolve.

Except for a small area near the western boundary of the excavated area north of Lodge Floor #6, the surface of the site was covered by a mantle of loam or humic material which varied in thickness from ten to thirty-five centimeters (4" to 14").

Four terms, Humus (loam), yellow soil, sand and silt, were employed to describe the various soils encountered during excavation. Sometimes these terms were modified by the use of such adjectives as fine, very fine, or coarse. Although not technically accurate, these terms will be used in this report. It is recognized that the terms do not describe sharply defined levels and that the various zones cannot be equated with geologically defined cross-sections.

HUMUS

This is a sandy loam which is brown to black in color depending upon the included material. Small water-worn pebbles occur frequently within this layer. The surface is covered with a thin turf composed of grasses and herbaceous plants, and roots from this cover extend through the humus into the underlying yellow soil. At some points, especially within the Lodge Floors, the lower portion of the humus layer is heavily impregnated with powdered charcoal and is often described as hard or compressed. Included in the humus were a few artifacts of Indian and more recent origin, all of which are distributed vertically and horizontally in unpredictable fashion, due to long occupation and heavy cultivation.

The point of contact between the humus and the yellow soil has been called "junction". It must be understood that this is a zone several centimeters in thickness, rather than a sharply defined line. The "junction" is an artificial horizon resulting largely from cultivation; it has no geological significance. In all areas in which the humus is not more than twenty centimeters (8 inches) in thickness, the surface of the yellow soil is scarred by plow marks which extend in a north-south direction. Within a given square the relief of the yellow surface can be as great as twenty-five centimeters (10 inches).

YELLOW SOIL

This uneven surface is assumed to be the result of exposure and occupation in aboriginal times. It is worthy of note that, for the most part, the deeply worn areas occur outside of the Lodge Floors. The yellow soil may be from five to seventy-five centimeters (2 to 30 inches) in thickness, occasionally thicker, and varies in color from a light yellow to dark brown. It consists largely of medium fine sand including a few pebbles a centimeter or less in diameter. Ventifacts occur frequently at all depths in the yellow soil. This zone was present over the entire extent of the excavated area. At various spots, changes in consistency were observed but these appear to be of no great significance. The absence of any indication of ancient tree stumps suggests that the area was not forested in aboriginal times. The result of wind action is particularly noticeable on the included pebbles especially those of porphoritic material.

WHITE SAND

The sand or "white sand" as it is sometimes called in the notes, underlies the yellow soil at various depths from a few centimeters to over one hundred centimeters (2 to 40 inches). This layer is composed of fine sand which varies in color from a light yellow through white to grey. Pebbles are rarely encountered. Occasional lenses of silt appear and at some points the surface of the sand rises sharply in dome-like masses to within a few centimeters of the "junction". At varying depths, concentrations of limonized sand were noted. The bottom of this deposit was reached in only a few places where test holes were drilled with a post hole auger. The sand appears to lie upon a layer of fine silt or clay. In some squares the surface of the white sand was easily identified, while at other points the transition from yellow soil to white sand was so gradual as to defy precise measurement. Stains, presumably from decayed roots, were present within this zone.

The evidence seems to indicate that the soils which compose this large dune are reworked glacial till. The original post-glacial surface lies far below the zone of penetration. The source of this material and the probable method of deposition is treated in a previous section of this report.

POST MOLDS AND LODGE FLOORS

During the excavation of Wapanucket #6, post molds were encountered in large numbers; a total of five hundred and forty-six were recorded and are shown on Map #4. Reference to this map indicates that the majority of the molds occurred in the northeastern section of the excavated area.

Post molds possess certain common characteristics which enable the excavator to recognize them quite readily. The majority are dark brown to black and are similar in color and consistency to the top-soil. It is assumed that the content consists of an admixture of decomposed wood from the post which originally occupied the space, and soil which entered the cavity as the wood disappeared. In some few instances granular charcoal was also present and modern root fibers were sometimes found which had entered the mold in search of moisture. That these stains were in reality the remains of the underground portions of upright poles is indicated by their appearance in great numbers and in definite patterns within an area exhibiting many other signs of aboriginal occupancy.

Upon the removal of the top-soil, the tops of the post molds appear as dark stains, usually circular, in definite contrast to the surrounding yellow soil. After recording the position and diameter of the stain, a vertical cut was made to reveal the cross-section of the feature. If no vertical extension of the stain appeared, the record was disregarded. However, if a true post mold is present it will be confirmed by a definite cross-section. The majority of post molds at Wapanucket #6 were found to be bounded by smooth curvilinear sides which met to form a sharp point at various depths. All but three of the molds were straight in the ground at a right angle to the surface and their outlines were smooth and regular in appearance. From this type of outline we formed the opinion that they had been sharpened by fire rather than having been hacked to a point by stone axes.

EXCAVATIONS

In five instances rectangular posts were indicated by the shape of the stain, and a triangular post was noted in one instance. The measurements of these features should be regarded as approximate; it is probable that they are somewhat less than that of the original post which created them. The surface of the yellow soil, from which point most of the molds are measured, is an arbitrary horizon created largely by plowing; it is apparent that the upper portion of the molds may have been destroyed by the same agency. In other instances in which the tops of the molds appeared at various distances below this horizon, the upper portions may have been destroyed by tree roots, rodent burrows, or similar natural causes. We also suspect that the diameter of molds are somewhat less than that of the original post. It seems probable that the pressure of the surrounding soil would tend to compress the softer material within the mold as the wood disintegrated.

The grouping of post molds at Wapanucket# 6 forms an interesting and unique pattern. The following tabulation might not, of course, be duplicated by another observer; also the fact that some of the molds may have entirely disappeared, thus altering the grouping, must be taken into consideration.

POST MOLD GROUPING

LODGE FLOORS	MOLDS NOT ASSOCIATED WITH FLOORS
71 - single molds	76 - single molds
90 - pairs of molds	55 - pairs of molds
8 - groups of three molds	15 - groups of three molds
3 - groups of four molds	7 - groups of four molds

LODGE FLOORS

The first of the post molds to be found at Wapanucket #6 were encountered just north of the base line. Upon being plotted on the grid plan six pairs of molds were observed to form an arc, while four single molds did not appear to be related to the arc. Unfortunately the molds marking the western portion of the floor had been destroyed by a number of modern refuse pits. This circumstance retarded recognition of the presence of a lodge floor. Six small areas, within the circle indicated by the arc of molds, were noted. They are described as hard lenses of black soil resting on yellow soil. The boundaries of these lenses in some instances coincided with the grid lines, suggesting that the bound as recorded was simply a function of the power of observation of the persons excavating adjoining squares. Marks of plowing appeared in the yellow soil between these hard lenses. With some misgivings, the feature was recorded as a possible floor, roughly circular and approximately nine meters (30 feet) in diameter. The shape, in the absence of complete data, was assumed to be round, as this was the usual plan of lodges reported from the area. It was not until the succeeding floor pattern revealed the peculiar method of construction followed at this site, that we realized that the single molds were actually a part of this structure. The nearly perfect circle which represents this floor on the plan is probably somewhat inaccurate.

The post molds which outlined the floors of Lodges #2 and #3 were nearly all present, and fairly accurate plans are possible. The molds again appeared in pairs except that an occasional single mold was encountered in the line of the outer wall forming the entrance. In Lodge

#2 the outer wall flares slightly between the last two posts. Hard lenses of soil, similar to those encountered in Lodge #1, were again noted within these floors.

The three floors described above were excavated during the initial season (1956) but, prior to the close of that season, several pairs of molds, forming arcs, were noted north of floors #2 and #3. It was assumed that at least two additional floors would be found in that direction.

The peculiar pattern which had been established, together with the fact that floors of considerable size and evident permanence were associated with a lithic complex which appeared to be of archaic provenience, was the subject of much speculation during the ensuing months of enforced inactivity. Realizing the importance of the discovery, as well as the necessity of establishing the data beyond any reasonable doubt, we resolved upon two procedures. First, we decided that it would be well if some independent authority would excavate one of the floors which we expected would appear, upon resumption of field work; and, secondly, we felt that we should evolve a more satisfactory method of excavation which would result in more precise recognition of the floor of the lodge, aside from the post molds which bounded it.

In the first instance we were delighted when an invitation extended to Dr. William A. Ritchie to spend some time with us at Wapanucket during the 1957 season met with an affirmative response. We felt that should his work result in data which coincided with ours, the patterns which had been tentatively established during the previous season would be validated. The lingering doubts that we were the victims of "wishful thinking" would be dissipated.

Following a thorough review of our digging methods and a study of the data so far obtained, we decided to adopt the following procedure in the excavation of Lodge Floor #4. First the loam would be removed over the entire area, the post molds being located and sectioned during the stripping. Having determined the outline of the floor, the surface would be scraped horizontally and a careful check made of relatively hard surfaces. We hoped that in this manner we would be able to locate the actual occupation floor.

Upon our return to Wapanucket in the spring, we extended the grid so as to include Lodge Floors #4 and #5. The area in which floor #5 was expected to appear was reserved for Dr. Ritchie and we turned our attention to the excavation of Floor #4. The procedure determined upon proved to be laborious and not too successful. The season was an extremely dry one and the removal of so large an amount of top-soil was a tedious and very dusty task. Then, too, this lodge floor proved to be by far the largest floor present at the site, having a diameter of nearly sixteen and a half meters (66 feet). At some places within the circle of molds, hard surfaces were noted but their precise bounds were difficult to define with accuracy. We soon found that a surface which impressed one individual as being hard, did not seem so to another. The difficulty was further increased by our failure to recognize the extent of the entrance of this lodge. We assumed that the line of molds marking the northern interior wall limited the floor in that direction and thought that the entrance way extended into the roadway to the east, ending somewhere in that disturbance. As the hardened areas seemed to extend beyond the supposed floor line to the north we supposed that our observations were incorrect in that regard. It was not until the full extent of the long entrance

way of this lodge was revealed that we recognized our error. Plow marks occurred at some points within the lodge floor, while at other points within the same floor no such disturbance could be seen. The obvious conclusion was that the varying thickness of top-soil allowed the plow to penetrate it at some points while at others the plow was contained within it. However, some of the hard lenses were doubtless the remnants of a former floor. If so, the data indicates that this floor extended to within a few inches of the outer wall of the lodge and extended through and for a short distance beyond the entrance. At least no hardened surfaces were noted at any point outside of the lodge floors.

Lodge Floor #4 differed from the other floors not only in size but in internal arrangement. Its enclosed or protected entrance extended more than half way around the structure and its opening faced in the opposite direction, toward the south. Within the lodge were two concentric arcs of molds with their open sides toward the point of entrance into the lodge proper. Coinciding with the inner arc of molds, and almost equidistant between adjacent molds, were three small hearths and two pits. Three additional pits and two hearths also occurred within the lodge. The possible function of this lodge has been the subject of much discussion; its size, location with respect to the other floors, and its internal arrangements, suggests that it may have served some ceremonial function.

Lodge Floor #5 was excavated by members of the Chapter under the personal supervision of, and with the assistance of, Dr. Ritchie. The same method of stripping the overburden, locating post molds, and finally scraping and trenching the floor, was followed. The data obtained by Dr. Ritchie coincided precisely with that which we had previously obtained in every particular.

The area in which Lodge Floor #6 was located had suffered considerable disturbance. Traces of an old path traversed a portion of the floor and the resultant surface erosion had exposed the surface of the yellow soil over a large area. An arc, consisting of six pairs and five single molds, indicated the position of the entrance way and provided sufficient data to allow the projection of the probable wall of the lodge. Again, as in the case of Lodge Floor #1, the plan of this lodge must be considered as approximate.

Lodge Floor #7 was located and excavated during the 1958 season. The outline of this floor is slightly oval.

Excavations have proceeded sufficiently in all directions from the seven floors to satisfy us that the entire village pattern has been revealed. The data established the presence of an entirely new type of lodge, repeated in seven instances, and verified by an independent authority. In the construction of these lodges, pairs of posts were driven into the earth about the circumference of a rough encentric circle or oval of the desired diameter. The posts, almost without exception, were driven straight into the ground at a right angle to the surface. Their sharpened ends indicate that they were driven, rather than set in a prepared hole, and suggests that the heighth of the wall was limited by the length of post which could conveniently be driven. The walls were allowed to by-pass each other so as to form a short protected or covered entrance which was (with a single exception) orientated toward the northeast. It is worthy of note that this is the direction away from the pre-

vailing winds which usually blow from the south across the open lake, especially in the spring of the year. The pairs of posts were placed in a radial line from the center of the structure, but there is an occasional deviation from this rule. The distance between posts of a given pair ranges from twenty-five to forty centimeters (10 to 16 inches.) This spacing seems to be a function of the diameters of the respective posts. The plan also shows the pattern of a village of this period. (Map #4)

LODGE FLOOR #1

Diameter - 9 meters (approx.) 30 ft.
Total post molds - 16
Ave. Diameter of molds - 7.2 Cm.
Ave. Length of molds - 28.6 Cm.

LODGE FLOOR #2

Diameter - 9 meters 30 ft.
Total post molds - 46
Ave. Diameter of molds - 6.2 Cm.
Ave. Length of molds - 20.3 Cm.

LODGE FLOOR #3

Diameter - 10 meters (approx.) 40 ft.
Total post molds - 24
Ave. Diameter of molds - 7.4 Cm.
Ave. Length of molds - 29.2 Cm.

LODGE FLOOR #4

Diameter - 16.5 meters 66 ft.
Total post molds - 102
Ave. Diameter of molds - 6.5 Cm.
Ave. Length of molds - 21 Cm.

LODGE FLOOR #5

Diameter - 10 meters 40 ft.
Total post molds - 43
Ave. Diameter of molds - 6.8 Cm.
Ave. Length of molds - 23.8 Cm.

LODGE FLOOR #6

Diameter - 12 meters (approx.) 46 ft.
Total post molds - 17
Ave. Diameter of molds - 6.5 Cm.
Ave. Length of molds - 29.5 Cm.

LODGE FLOOR #7

Diameter - 11 meters 43 ft.
Total post molds - 43
Ave. diameter of molds - 6 cm.
Ave. Length of molds - 22.5 Cm.

A total of two hundred eighty-seven post molds were assumed to be a part of the structures of lodges or directly associated with them Of these, the average diameter was 6.6 Cm. ($2\frac{1}{2}$ inches) and the average length was 25 Cm. (10 3/4 inches.) The smallest mold found, the upper portion of which had obviously been destroyed by a tree root, was 3 Cm. ($1\frac{1}{4}$ inches) in diameter and 8 Cm. ($3\frac{1}{4}$ inches) in length while the largest mold found measured 14 Cm. ($5\frac{1}{2}$ inches) in diameter and 61 Cm. (24 inches) in length. Two hundred thirty of these molds appeared at, or within a minus 5 Cm. (2 inches), of the junction of loam and yellow soil. In addition to the post molds which mark the position of functional posts of the walls of the several structures, many molds appear within the enclosures or adjacent to the walls just outside of the enclosure. Some of these molds, but their location, suggest that broken or weakened posts may have been replaced from time to time. Other molds seem to bear no relation to the structures with which they are associated. These may mark the location of previous lodges.

EXCAVATIONS

PITS AND HEARTHS

During the excavation of an Indian site certain features are encountered which, in the final study, are called pits or hearths depending upon their appearance, content, and the position which they occupy in relation to an accepted horizon.

Basin-like depressions at or near an occupied level, which contain charcoal, particularly those surrounded by indurated or reddened soil, or limited by encircling stones, are usually alluded to as hearths. Other features, usually somewhat larger in diameter and depth, are commonly spoken of as pits. Many pits also contain carbonized material and broken, burned stone, and are assumed to have served as a receptacle for the contents of hearths and other camp refuse. If the tops of these features are directly associated with an occupied horizon this criteria of function is probably valid. When basin-like features occur which would be accepted as hearths, except for the fact that they are deeply buried, difficulties arise in determining their probable function. If they are to be called hearths, one must also assume the presence of a second horizon in proper relation to them. However, it is also possible to think of these deep hearth-like features as the basal portions of pits the tops of which originated at a higher level, but which are now indistinguishable from the soil surrounding them. When a pit is nearly filled with carbonized wood, its entire profile is so clearly marked in color that it is easily recognized and can be properly recorded. If such a pit is but partially filled by dark colored material, and its upper portion refilled with soil similar to that surrounding it, its presence may not be noted until the darker base is encountered. In such an instance the field notes incorrectly indicate a deeply buried hearth rather than a pit. Prior to the excavation of this site, this possiblity had been discussed and we were on the watch for the least sign of disturbance in the natural distribution of soil. As a result the presence of illusory disturbances are frequently mentioned in our notes. In many instances such disturbances may be dismissed as natural phenomena. In some instances, however, in which charcoal or broken stone fragments were noted in apparently undisturbed soil, the base of a pit was encountered directly beneath.

At Wapanucket #6 the typology of the artifacts. and the vertical distribution, indicated the presence of a single occupied horizon. A majority of the artifacts, the tops of the larger part of the pits and hearths, and the tops of most of the post molds, occur at or very near the junction of loam and yellow soil. It is assumed therefore that the possibility discussed above is the correct solution of the problem of buried charcoal deposits at this site.

PITS

A total of forty-seven pits are recorded from the Wapanucket #6 site. (Map #4) Of these, the tops of twenty-five were located at or very near the present junction of loam and yellow soil. In a number of instances the presence of a lense of scattered charcoal, or dark colored soil, or perhaps a scattered group of broken pebbles adjacent to the top, offered evidence of plow disturbance. The first definite indication of the presence of the remaining twenty-two pits did not appear until the darker colored content was reached at depths varying from eighteen to seventy centimeters (8 to 28 inches) below the junction. In these latter cases

the notes often allude to disturbances noticed in the soil above them, or to the presence in it of scattered charcoal or bits of burned stone.

Whatever may have been the original function of these pits, the majority of them eventually became receptacles for camp refuse, largely the content of abandoned hearths. The material usually found in them is variously described as dark, black, or brown soil containing powdered charcoal, carbonized sticks and bark, burned and broken stone, with occasional bits of calcined bone.

In some instances, however, a somewhat different function is indicated. Pit #31, for example, was first noted directly below the junction and is described as a rather shallow disturbance, fifty centimeters (20 inches) in diameter with a thickness of thirty-six centimeters (14 inches) at the center. It was simply a deposit of mixed soil sufficiently different in composition to be recognized from the surrounding soil. In the pit was a cluster of twelve beach pebbles of fist size or slightly larger. These pebbles had been cracked by the intense heat to which they had been subjected, being burned a deep red in the process. Similar contents were found in four additional pits (#15, 18, 20, 21.) The field notes describe Pit #18 (Fig. 3) as follows, "Diameter 29 Cm. (11 inches), Depth 58 Cm. (23 inches), Top found at 15 Cm. (6 inches) below junction, a lense of charcoal was above and south of the pit and there was considerable disturbance in the soil directly above the pit. The content was dark brown soil, no charcoal, nineteen large beach pebbles (fist size) in the bottom of the pit."

It seems quite possible that these are cooking pits used in the following manner. Beach pebbles are heated in a surface fire. When these have reached a fairly high temperature they are quickly transferred to a previously prepared pit nearby. Food of some sort, probably wrapped in wet leaves or placed in a container, is laid upon the hot stones, and the pit refilled with earth. In a few hours the food, now thoroughly baked, is recovered and the hole refilled with the earth previously removed. In some instances some charcoal was accidentally included, possibly some would adhere to the heated stones, but there is now little but the burned stones to indicate the presence of the pit. The writer has tested this method of cooking and can attest to its efficiency. Fish, cleaned and encased in clay from the river bank, can be baked to a turn in a very short time. Beans placed in a cast iron vessel with plenty of fat pork and allowed to remain overnight in the "oven" will provide a particularly delicious meal. Probably many of the pits, which became the receptacles of camp litter, originally served for cooking.

One gets a somewhat different impression of the function of other pits found at the same site. Pits #1, 2, 4, 9, 11, 38, 42 and 48 are comparatively large. Some of them are greater than 200 centimeters (79 inches) in diameter and attain a depth of more than 100 centimeters (40 inches). The content of these large pits consisted of carbonized wood in the form of sticks up to 5 centimeters (2 inches) in diameter, masses of what appeared to be carbonized pine needles, large lumps of a hard, indurated, black substance containing crystal-like grains, and lenses of red burned sand. The sides and bases of these pits have been effected by the heat and it would appear that the contents had been burned in situ. Usually a broken implement or two is found in these pits. In Pit #9, a small wooden tray or dish, reduced to a cinder, was recovered by careful work. (Fig. 15) The presence of similar wooden vessels in some of the other pits is indicated in our field notes but in these instances

the supposed artifact was so badly burned and disintegrated that positive identification was impossible.

Pits #32 and #40 may be of natural origin. They are described as very illusory areas or disturbed soil, the precise extent of which was difficult to define. Although measurements appear in the records, they must be considered as extremely inaccurate. Both were rather deep in the sand zone and neither contained charcoal or burned stone. A broken white quartz projectile point, which could not be typed, was recovered from Pit #40.

Pits #41 and #44 differ considerably from other features found at Wapanucket #6. Pit #41 was a large disturbance in the sand zone at a depth of ninety-two centimeters (36 inches) from the junction. It is described as a lense of dark soil containing no charcoal or burned stone, two hundred thirty centimeters (ninety-one inches) in length by seventy-six centimeters (thirty-two inches) wide. The thickness of the deposit was approximately sixteen centimeters (6 inches). The outlines of this feature were not sharp. Several modern refuse pits directly above may have destroyed the upper portion of this pit. Pit #44 was also quite large. (Fig. 3.) Its top appeared at fourteen centimeters (five and one half inches) from the junction, the plan was irregular but definite. It measured two hundred twenty-four centimeters (eighty-eight and one half inches) by two hundred ten centimeters (eighty-four inches). At a depth of eighty-nine centimeters (thirty-three inches), near the northern wall of the pit, Hearth #39 appeared. This hearth consisted of a base or hearth stone sixty-four centimeters (twenty-six inches) by sixty-one centimeters (twenty-four inches), ten centimeters (four inches) in thickness, about which a ring of smaller stones had been placed. The southern side of the ring was in situ, the stones which composed it had been set in sand adjacent to the flat hearth stone and projected above it about twenty-centimeters (eight inches). The ring or wall about the western and northern sides had apparently consisted of smaller stones laid one upon another. The lower stones were in place but the upper row had fallen outward and were scattered to the north of the hearth. Although these stones showed the effect of intense heat and some were cracked and broken, there was no charcoal present in the hearth. The surrounding soil was burned a deep red in color. Some charcoal and several lenses of red soil were encountered elsewhere within this huge pit. Just west of the hearth at the same level lay a large lance or spear point. This implement was so badly worn that the flake scars were nearly obliterated. No obvious explanation of the function of this feature appears; it may be related in some obscure manner to the ceremonial complex of the site of which abundant evidence occurs elsewhere.

Pit #48 (Fig. 3) is most certainly ceremonial in concept. In the construction of this feature an excavation one hundred thirty centimeters (fifty-one inches) by one hundred fifteen centimeters (forty-three inches) had been dug to a depth of one hundred twenty centimeters (forty-five inches) starting from the junction. A lining of clay some five centimeters (two inches) in thickness on the sides and nearly ten centimeters (four inches) thick over the bottom had been placed within the hole. Slightly dark yellow soil occupied the space between this outer lining and a second lining of some dense black material thought to be organic, possibly bark. Within this black lining and surrounded by brown colored soil was a third lining composed of somewhat finer clay approximately three centimeters (one and one quarter inches) thick. The soil within

the central portion of the pit was black from powdered charcoal. A small, stemmed white quartz projectile point was found between the outer clay and the second lining. Near the top of the pit, but just outside it, was a rim sherd from a steatite vessel and near the base of the pit within the outer clay lining lay a second sherd from the same vessel. Still a third fragment of the vessel appeared outside the pit near its base at a depth of one hundred ten centimeters (thirty-nine inches).

A small pit #51, twenty-four centimeters (nine and one half inches) in diameter and fifty-five centimeters (twenty-one and three quarters inches) in depth, filled with dark brown soil, contained fragments of iron oxide. At the base of this pit, a small lap anvil and a hammer stone were found.

Pit #29 (Fig. 3) is of particular importance to this report. It was one of twenty-two similar pits found at this site, the upper portions of which were difficult to distinguish from the surrounding soil. The charcoal content was found at a depth of thirty-three centimeters (thirteen inches) from the junction at which point the pit was thirty-eight centimeters (fifteen inches) in diameter and extended fifteen centimeters (six inches) deeper into the soil. The following description appears in our field notes: "dug into yellow soil and covered with the same. Filled with good charcoal (sticks and bark) which was saved for carbon-14 analysis." This pit was excavated and the carbon sample taken and submitted for analysis to the geochronometric laboratory at the University of Michigan, by Dr. William A. Ritchie. It is assumed that this pit originated at the junction of loam and yellow soil but was refilled above the charcoal deposit in aboriginal times. There is no archaeological or geological evidence of an old surface comparable with the thirty-three centimeter level at the site. The result of the carbon-14 analysis is as follows, "M-764, 4250 ± 300 years B.P., Wapanucket Site #6 at Assawompsett Pond, Middleboro Township, Plymouth County, Massachusetts. An archaic site undergoing excavation by the Cohannet Chapter, Massachusetts Archaeological Society under the direction of Maurice Robbins. Specimen from Pit #29, Square 0-13 in yellow soil zone of site just outside Lodge Floor #5 (29).

HEARTHS

Thirty-nine hearths, of two general types, were found at the site. Basin like depressions scooped in the yellow soil, usually containing nothing but charcoal and stained soil, were the most prevalent type. The second type consisted of various shaped depressions in which burned and cracked stone was a prominent characteristic. Except in one instance, the latter type contained little or no charcoal, but the reddened soil in which the stones were embedded offered evidence of the function which they served. Most of the hearths were disturbed their tops having been plowed off and scattered. Burned and broken stone fragments in the vicinity of several hearths suggest that many of the simple type of charcoal filled basins may have been originally surrounded by a ring of stones.

Of the first mentioned type, twenty-three were recorded. Eighteen were between twenty and forty centimeters (eight and sixteen inches) in diameter, five were slightly larger, measuring between forty and sixty centimeters (sixteen and twenty-four inches) and one large hearth had a diameter of sixty-five centimeters (almost twenty-six inches). The depth or thickness of these hearths varied with their diameter but none exceeded thirty-five centimeters (fourteen inches.) In all but six instances the

tops of the hearths coincided with the junction, but none were more than seventeen centimeters (six and one half inches) below it. All were surrounded by red indurated soil. Two implements were recovered from Hearth #4; a small stemmed scraper of white quartz appeared near its upper edge and a flat stone with rubbed or polished edges was buried five centimeters (two inches) deep in the charcoal content. Five hearths were oval in shape, averaging sixty by thirty centimeters (twenty-four by twelve inches); their content was similar to the circular forms. A hearth located within Lodge Floor #5 was horseshoe shaped but this peculiar shape may have been the result of disturbance.

Ten of the second general type were recorded. These were of various sizes and shapes. #35 and #39 were round depressions encircled by rings of water-worn beach pebbles. The pebbles were embedded in yellow soil but the upper portions of some of them were surrounded by loam. Very little charcoal was found in these hearths. In two instances the stone hearths were completely covered by yellow soil, but in the majority of cases, the tops were at the junction. Hearth #14 (Fig. 7) consisted of a layer of burned stones fifty-three centimeters (twenty-one inches) in diameter, while #24 and #33 were oval, sixty by forty-eight centimeters (twenty-four by nineteen inches) and seventy by sixty centimeters (twenty-eight by twenty four inches) respectively. Hearth #24 (Fig. 4) was cup-shaped and the stones were embedded in charcoal rather than in yellow soil. Hearth #33 consisted of three layers of rather small pebbles and had a total thickness of thirteen centimeters (five inches). A rectangular bed of beach pebbles, fifty-four by twenty-four centimeters (twenty-one by ten inches) in plan, lying in an area of burned soil some twenty-four centimeters (ten inches) in thickness was numbered Hearth #9 (Fig. 4). A still larger rectangle, seventy by sixty centimeters (twenty-eight by twenty-four inches), and of similar construction appears at Hearth #25. Hearth #13 was triangular in shape, having a base of sixty-four centimeters (twenty-five inches) and sides fifty-four centimeters (twenty-one inches) in length. Hearth #39, located within Pit #44 has been described above. The two remaining Hearths #12 and #38 were greatly disturbed by plowing. The burned stones which had apparently defined them were scattered mostly within the loam, but the locations of the hearths were clearly indicated by the burned soil just below the junction.

BURIALS (Fig. 5)

The burials at Wapanucket #6 were found to be south of the base line in the area that had been intentionally avoided because of the presence of numerous modern refuse pits. However, as the village pattern developed, it became necessary for us to extend our excavations in all directions so that the limits of the village might be accurately determined. A grid system was therefore set up south of the base line to which minus designations were assigned. (Map #4)

Burial #1 was encountered approximately eight meters (twenty-six feet) south of the original base line. At this point the removal of the top-soil revealed a lense of coarse sand containing many small pebbles. The sand varied in thickness from six to sixteen centimeters (two to six inches). Beneath the sand the yellow soil, which was apparently undisturbed, extended downward some forty-six centimeters (eighteen inches) where it rested upon a fairly level horizon of fine white sand. At thirty-two centimeters (thirteen inches) below the sand lense, or sixty centimeters from the present surface (twenty-four inches), the burial pit appeared as

an oval stain, one hundred and forty centimeters by one hundred and twenty centimeters (four and one half by four feet). Its longer axis was oriented along a northeast-southwest line. The disturbance was in the shape of a shallow, basin shaped pit, nineteen centimeters (seven and one half inches) thick at its center. The upper portion of the pit contained a thin layer of dark soil which presently became dense black, evidentally colored by a considerable amount of charcoal in powdered form. Throughout the pit small fragments of stone, shattered by intense heat, and bits of calcined bone were encountered. In the lower southwestern portion of the pit a mass of calcined bone appeared. No grave goods or red hematite accompanied this burial. Among the bits of bone were several in which suture lines were noted. As some of these appeared to be of human origin a sample was forwarded to Dr. J. O. Brew of Peabody Museum at Harvard University who kindly referred them to Dr. William Howells for identification. Dr. Howells confirmed our belief that some of the fragments were human but called attention to the presence of some bone of non-human origin. Among the recognizable fragments were bits of the crania as well as fragments of the small bones of the hands and feet. It is probable that the remains of more than a single individual were present.

Burial #2 was located a short distance north of Burial #1 and adjacent to Pit #26. The burial was complicated by the presence, directly above it, of two modern refuse pits which had been dug from an old surface at a depth of twenty-six centimeters (ten inches) from the present surface. Penetrating the earth to a depth of sixty-five centimeters (twenty-six inches) the modern pits had slightly disturbed the upper portion of the burial. The burial appeared as an oval, one hundred sixty centimeters by one hundred forty centimeters (five feet three inches by four feet seven inches) at a depth of sixty-two centimeters (twenty-four inches) below the present surface. Except for the modern refuse pits mentioned above, the soil above the burial was undisturbed. The fill of the pit contained such a large amount of granular charcoal that it appeared as a dense black mass against the surrounding white sand. A few sticks of charcoal were present and were retained as a possible radiocarbon sample. The calcined bone in this burial was also concentrated in the southwestern quadrant of the pit. A small amount of red hematite was noted intermixed with the black fill. Almost in the center of the pit, surrounded by sand and red paint, lay a plummet. This implement, shown in Fig. 6, is of stone in an advanced state of disintegration. It was necessary to immerse it in alvar immediately to prevent it from crumbling. Possibly this implement had been in contact with a fire-making set, as spots of iron oxide were attached to two of the gouges from the burial. Beneath the mass of calcined bone was a thin layer of pure, bright red paint and in this were found two of the gouges shown in Fig. 6. (Nos. 2 and 4) Beneath this layer and in the extreme southwestern extremity of the grave, was a layer of purple sand similar in fineness and color to the clay found at Gay Head, Martha's Vineyard, Mass. In this fine sand were two additional gouges (Fig. 6, Nos. 1 and 3), an unworked pebble of a gritty substance whose flattened surfaces proclaimed its use as a sharpening stone, and a pencil-like fragment of slate which bore marks of similar use (Fig. 6, Nos. 5 and 7). One of the gouges (4) appears to be a remnant of a much larger implement which has been reworked and used in its present form.

A third burial was discovered a short distance northwest of Burial #2, and again modern refuse pits (not shown in the illustration) were present above the ancient pit but had not intruded upon it. This was a

large grave, oval in shape, two hundred twenty-five centimeters by two hundred sixty centimeters (eight feet by seven feet, 11 inches). The disturbance became apparent at a depth of sixty-two centimeters (twenty-four inches) below the present surface, the fill being the same dense black material as that in the previous burial. The familiar orientation of southwest-northeast was repeated and again the mass of calcined bone appeared in the southwest quadrant of the grave. No red paint was found within this grave but grave goods were present in and just below the deposit of bone. Fig. 6, No. 9 shows a double-crescent ulu from this burial. This implement is made from gray slate containing black material in lines across its small dimension. This is a highly polished artifact with one sharpened edge and one rounded or blunted edge. The cutting edge is somewhat scarified by use. Adjacent to the ulu was an unmodified, gritty stone similar to, but slightly larger than, that found in Burial #2. (Fig. 6, No. 8). Facets at various points on the surface of the latter artifact indicate its use as a polishing agent. Charcoal in solid form was taken from this burial and retained as a possible radiocarbon sample.

Once again modern trash pits failed to intrude upon an ancient burial. The pit appeared at a depth somewhat greater than in the previous instances at this site, at eighty-six centimeters (thirty-four inches) below the present surface. The plan was oval, two hundred twenty by two hundred centimeters (seven feet three inches by six feet seven inches) with its longer axis in a southwest-northeast line. The calcined bone in this grave was concentrated as expected in the southwest quadrant of the pit. No grave goods were found in this burial.

It is quite evident that these are secondary burials; the side of the pits do not exhibit any defects of incineration and when grave offerings are present, they have not been affected by fire. The inclusion in the fill of numerous fragments of fire-cracked stone and bits of solid charcoal suggests that the residue from cremation pits, located elsewhere, was somewhat carelessly gathered up and transported to the spot selected for burial. It should be noted in passing, that in spite of careful search, not a single tooth was found in any of these burials.

It is difficult to understand the reason for the digging of such large pits, especially in the case of Burial 3, to receive such a small quantity of bone. The repeated orientation of the burial pits along a southwest-northeast line and the placing of the calcined remains in the southwestern quadrant was without doubt intentional and had some meaning to the aborigines who made the interments.

At the date of this writing the result of the radiocarbon check of the samples taken from the burials is not available. In its absence it is assumed, because of stratigraphy and typology, that the burials were those of the people who inhabited the village described in this report.

THE CREMATORIES

During our work at Wapanucket #2-A and Wapanucket #5 two features of unknown function were uncovered (Map #3). It was not until the secondary cremation burials appeared at Wapanucket #6 that the purpose of these features became clear. Of course, the incinerated bone found in the Wapanucket #6 burials may not have come from these particular crematories; their relationship with the archaic village, except geographically and culturally, is not established. However, they are undoubtedly a part of

the complex which appears at the village and are therefore described here.

A member of the former Middleboro Archaeological Society, who had taken part in the work of that society at Wapanucket, also took an active part in the excavation of Crematory #3. He stated that a similar feature had been discovered by the Middleboro group some years ago at Wapanucket #2. Its approximate location is shown on Map #3 as Crematory #2. A diligent search of the records of the Middleboro Society, which are in the writer's possession, has failed to disclose mention of this crematory.

CREMATORY #1

Extensive testing, adjacent to an area previously excavated by the Middleboro Society, was carried out by the Cohannet Chapter during the spring of 1952. This test was designated as Wapanucket #2-A (Map #3). A trench in a northerly direction from the old excavation disclosed the presence of a feature which at the time was described as a mammoth hearth. The structure took the form of a rough circle about two and one half meters (8 feet) in diameter. The top appeared at the junction of loam and yellow soil. The depth of the feature was sixty-five centimeters (25 inches) and its sides were perpendicular to the base. A layer of fine white sand, approximately twenty centimeters (eight inches) in thickness, covered the bottom of the excavation. Large flat slabs of sandstone had been used to cover the sand layer while others, set upright about the periphery, formed the sides of the pit. Several bushels of charcoal were removed from the pit before the stone pavement became visible. The sand below the stones was stained black to a depth of ten centimeters (four inches). In two places, recent holes had been dug from the surface and had penetrated the feature. It was apparent that several of the basal slabs had been removed when these disturbances occurred. All of the stones present showed the effects of intense and prolonged heat. No recognizable fragments of bone or implements were found during the excavation of the feature.

Five small pits or hearths, arranged in a more or less orderly fashion, were found about the north-east periphery of the main feature. These were about forty-five centimeters (eighteen inches) from the edge of the crematory. Although these smaller features have the depth and appearance, in cross-section, of a pit, a ring of small stones about their top creates the appearance of a hearth. Attention is called to the similarity of these small features and their orientation with those found within the enclosure of Lodge #4 (Map #4).

CREMATORY #3

The second of these two features found by the Cohannet Chapter was at Wapanucket #5 (Map #3 and Fig. 4). In this instance the structure was undisturbed and was excavated with considerable care. It yielded a large amount of data but we were still at a loss to explain its function in a manner satisfactory to us. Crematory #3 was almost a perfect circle, three meters (ten feet) in diameter and approximately sixty centimeters (twenty-four inches) in depth. Again a shallow pit had been dug in the yellow soil and its base covered with fine white sand to a depth of twenty centimeters (eight inches). Numerous small water worn pebbles, contained within the sand, suggested that its origin was the shore of the lake. Large flat sandstone slabs had been set upright about the periphery of the pit to form a definite edge, and a platform of similar stones con-

stituted the bottom of the feature. The pit was completely filled with charcoal, nearly five bushels were removed and sifted. The sand layer beneath the stone base had been stained a dense black to a depth of about ten centimeters (four inches) and the yellow soil adjacent to the edge, outside of the encircling stones, was burned to a deep red color. Many of the stones were cracked and broken by the intense heat to which they had obviously been subjected. Several burned bits of human bone were found scattered throughout the pit. Eighteen stemmed projectile points, a notched tablet of polished stone, a polished stone chisel, and a perforated pebble, all showing the effect of heat, were intermixed with the charcoal fill. (Fig. 17)

The similarity between this feature and that previously described was recognized at the time. We were confused by the presence of human bone in the second feature and had visions of canabalistic rights. The function of these features as crematories did not occur to us at the time.

ARTIFACTS

A total of 1167 artifacts, excluding spalls, chips, rejects, and fragments which could not be typed, were found at the Wapanucket #6 site. It is possible to separate these into a number of categories dependent upon material, shape and techniques of manufacture. The classification system used in this report is that published by the Massachusetts Archaeological Society under the title of "A Preliminary Classification Outline." This system is based upon the determination for a geographical area, of the range and variation in geometrical shapes of artifacts. It has been assumed that the number of artifacts belonging to the different shape categories is an expression of the industrial habits of the occupants of a given site and that these numbers constitute a convenient means of comparing one site with another. Such an assumption is subject to errors. The shapes selected are purely arbitrary, aboriginal concepts are not recognized, and the material used in the manufacture is of such a nature that a close control is not possible. The classification must be considered simply as a convenient means of describing and comparing the artifacts.

For convenience the following headings will be used; chipped stone, polished stone, rough stone, and miscellaneous artifacts.

Chipped stone artifacts number 937 and thus constitute more than 80% of the total artifacts. Under this heading are included projectile points, spear or lance points, knives, drills, scrapers, and some abberant forms. Of these 680 are projectile points which include more than 72% of the chipped artifacts. Eleven main types of projectile points have been differentiated on the basis of shape and size; particular emphasis has been given to their basal shapes. In some cases a further subdivision has been attempted for the sake of clarity. It should be pointed out that while it is a comparatively simple task to type those artifacts which conform closely to the type specimens illustrated in the classification system, there are many specimens which could be placed in more than one of the categories. Thus the judgment of the individual is involved and many arbitrary decisions are necessary. Although this creates grounds for disagreement in specific instances the overall picture is not affected because of the insignificant number of such occurrences. The materials selected for the manufacture of chipped implements at Wapanucket #6 in order of preference or possibly of availability are white quartz, felsite, shale, quartz crystal, quartzite, argilite, flint, and chert. Except for the last two mentioned, these materials are available in quantity in the immediate vicinity

In general, the artifacts are crudely made although an occasional specimen is found which belies this description. The larger points, probably because of the relative size of the flake to implement, appear to be much better made. In all chipped forms, the marks of primary percussion flaking remains, but the secondary flaking, probably pressure work, has been employed to finish the cutting edges and stems. As no bone tools were found, the technique of manufacture is largely a matter of conjecture.

ARTIFACTS

CHIPPED IMPLEMENTS

LARGE TRIANGULAR - TOTAL 5, W.Q. 2, FELSITE 3

These implements have been considered large because of the limitation imposed by the classification system i.e. greater than one inch (2.5 cm.) wide at the base. The largest is an equilateral triangle measuring 3.5 Cm. (1-3/8") along its sides. It is made from a fine grained red felsite and is quite thin in cross-section. The flaking is delicate and regular. On both faces a medial line extends from the center of the implement toward its three points. This specimen was found in the loam only 3 cm. (1 ¼") from the surface. A second large triangle was found a few inches from, and at the same level as, the first. It is also made of felsite. This artifact is an equilateral triangle, 2.8 cm (1-1/8") along its sides, but is more crudely made than the first implement. An isosceles triangle of felsite, very thin in cross-section and excellently chipped, was also taken from the loam practically at the present surface. This point measured 3.5 cm. in width by 4 cm. long (1 3/8" by 1 5/8"). These three points are markedly different in appearance and shape from the balance of the triangular points found at Wapanucket #6. Because of this and also because of their vertical position it seems probable that they are strays from some of the later sites in the immediate vicinity. However they have been included in this report to avoid any appearance of selection.

The remaining two triangular points in this category are similar in workmanship and shape to the small triangular forms to be described below. Had either of them been slightly less in basal width they would have been included in the small triangular type #4 category. That they are simply oversized artifacts of the latter type is suggested by the depth at which they were found, from junction to 5 cm. below in yellow soil.

SMALL TRIANGULAR TYPE #4 (FIG. 9, NOS. 1-6) Total 123, W.Q. 120, Shale 2, Felsite 1

These points have excurvate sides and concave bases, the depth of the basal concavity varies greatly and may be a function of the tractability of the material. Their length falls between 1 and 3 cm. (3/8" and 1 1/8"). In general the greatest width occurs just above the base due to the curvature of the sides. In some few instances the greatest width is at the base. Occasionally a specimen, made from a chip, has one flat face which has not been retouched; this is especially noticeable in those artifacts which are made from shale. Usually the cross-section is lenticular. The basal treatment of these implements is a prominent characteristic. Close inspection reveals that in retouching the base, flakes slightly longer than those removed from the sides have been struck off. This results in a central thinning of the base on both sides. In most instances the basal corners are thick and rather blunt.

SMALL TRIANGULAR TYPE #5 (FIG. 9, NOS. 8-11) Total 23, W.Q. 21, Quartz Crystal 1, Chert 1

Specimens of this type vary from equilateral triangles to those in which the sides are approximately twice the basal width. None are more than 2.5 cm. (1") wide at the base but the length is often more than 4 cm. (1 ½"). Because of the straight sides the greatest width is usually at the base. The basal edges have been retouched in most specimens and in some instances a single, large, central chip has been removed from both

faces so as to produce a slight channel. In some few specimens the base is actually blunt with no signs of thinning. The cross-section in general is lenticular but some rather flat specimens have been noted.

SMALL TRIANGULAR TYPE #6 (FIG. 9, NOS. 12-18) Total 91, W.Q. 65, Quartz Crystal 11, Shale 6, Felsite 8, Argilite 1

This type is a variation of Type #4 in which the base is narrow relative to the length. In general the specimens are better made than those described above. In those artifacts which are made from shale the flakes removed are larger and the cross-section is apt to be flattened. The bases of all specimens have been thinned but, as the sides are less excurvate, there is a tendency to be widest at the base.

SMALL TRIANGULAR TYPE #3 FIG. 9, NO. 7) Total 2, W.Q. 1, Quartzite 1

These are simply an elongate variety of Type #4, other characteristics being similar including the basal modification.

SMALL STEMMED (FIG. 10) Total 166, W.Q. 158, Felsite 7, Argilite 1

By definition these implements are small and have recognizable stems, none are more than 3.8 cm. (1 ½") in length. Aside from these common characteristics there is considerable variety among them. The majority are made from white quartz and it seems probable that the intractability of this material accounts for much of the variation. It is noticeable that, in the few specimens made from other materials, the workmanship appears to be much better.

The majority of these specimens may readily be divided into four subtypes. However, the vertical distribution suggests that these sub-types have no cultural significance. It seems more probable that the several shapes are simply a function of the flake used and the ability of the maker.

The blade of the first sub-type is triangular, sometimes equilateral but often isosceles depending upon the length of the implement. The stem, at the junction of the blade is wider than at its base. In some specimens the junction of the blade and stem is accentuated by slight projections (Fig. 10, 1 and 5). The stem may be described as a truncated triangle in which the base is at a right angle to the axis of the blade. In some instances the base is rounded rather than square and can be so narrow as to appear to be a blunt point (Fig. 10, #7). In the majority of specimens a chip has been removed from one or both faces laterally to thin the base. However, in a few specimens the base remains thick and appears to be a remnant of a striking platform. Usually the thickest portion of the artifact is at the junction of the stem and blade. The cross-section is lenticular. In general, implements of this type may be characterized as crude, but an occasional well made specimen will be encountered.

In the second sub-type the sides of both stem and blade are curvilinear. The blade is a combination of convex and concave sides. The stem is commonly about one half the length of the blade but variations occur. The base may be rounded or squared. In most specimens the base has been thinned by the removal of a single flake from one or both faces. In cross-section this type is lenticular but there is a tendency for one face to be less convex than the other. One gets the impression that this type is

even more crude than the first but a few excellently made specimens are present (Fig. 10, No. 8 to No. 14).

The blade of the third type is also curvilinear and constitutes about two- thirds of the implement (Fig. 10, No. 15 to No. 21). The single exception to this is the argilite specimen (Fig. 10, No. 17) the blade of which forms an isosceles triangle. Without exception these artifacts are wider and heavier than other small stemmed points. In cross-section they are lenticular, but occasional specimens have a flattened side. Stems are slightly narrow compared to the blade and their sides may be parallel or slightly concave. In all specimens the base has been thinned by the removal of lateral flakes from both faces. The base is square and at a right angle to the axis of the blade. Several narrow specimens have been found, but, in general, these implements are wide and inclined to be thick. The workmanship is excellent.

A final sub-type resembles the first except for the base. The blade is an isosceles triangle and constitutes about two-thirds of the implement. The stem has slightly concave sides with a concave base. At the junction of the blade and stem a slight protuberance produces an eared effect (Fig. 10, No. 22, No. 23).

The balance of the implements in this category are too crude to be definitely assigned to any of the sub-types (Fig. 10, No. 24 to No. 27). They present a combination of the characteristics of all. Some of these blades may be unfinished artifacts while others may be rejects.

LONG EARED (FIG. 11) Total, 7 All of Felsite

These are distinctive implements and are believed to have some cultural significance. The specimens from this site vary between 5 and 6.5 cm. (1-3/4" and 2 ½") in length and from 2 to 3 cm. (3/4" to 1¼") in width. The blade, which constitutes about three quarters of the implement, is triangular but its sides flare slightly just above the stem. The sides of the stem are concave and have been thinned by the removal of flakes from both faces. The base is also concave and is centrally thinned, forming blunt ears or points at the basal extremities. The cross-section is lenticular. The specimens from Wapanucket #6 show bold percussion flaking and secondary retouching along the sides of both stem and blade.

EARED (FIG. 11) Total 78, W.Q. 8, Quartzite 3, Shale 9, Felsite 58.

This type of point was quite popular at Wapanucket #6. The specimens vary in length from 3.5 to 8 cm. (1 3/8" to 3-1/8") and in width from 2 to 3 cm. (1" to 1 3/16") . The sides of the blade may be either straight or curvilinear. Deep side notches set off the stem. Except for a single instance, the base is slightly concave and has been centrally thinned, the basal extremities or ears are blunt and rounded. The cross-section is lenticular. As in the previous type percussion flaking is a prominent characteristic but retouching is quite evident.

TRUNCATED (FIG. 11) Total 8, Felsite 5, Shale 3

Points in this category average more than 5 cm. (2") in length by 2 cm. (3/4") in width. The sides are parallel for about one-half the length of the implement and then curve inward to meet in a point. The base is usually straight but, in some few specimens, is slightly concave. The

cross-section is lenticular. The flaking is bold but irregular. Both sides of the blade are retouched in most specimens but an occasional artifact has been retouched on only one face. The lower sides near the base are blunted in most implements.

DIAMOND (Fig. 11) Total 5, W.Q. 2, Shale 1, Felsite 2

The blades and stems of these artifacts are opposed isosceles triangles. The blade constitutes approximately three-quarters of the implement which averages 5 cm. (2") in length. The width is about 2.5 cm. (1"). The cross-section is lenticular. The basal extremity is blunt or rounded and inclined to be thick. The sides of the blade are retouched by the removal of small flakes alternately from each face so as to produce an irregular edge.

TAPERED STEM (Fig. 11) Total 46, W.Q. 31, Quartz Crystal 3, Shale 2, Felsite 9, Argilite 1

The length of the tapered stem points from Wapanucket #6 fall between 4 and 6.5 cm. (1½" and 2½") and they are between 2 and 2.5 cm. (3/4" and 1") in width. In general the flaking can be characterized as rude, and secondary flaking is seldom encountered. The sides of the blade and stem are commonly straight but curvilinear specimens are not unknown. These points are sometimes similar in shape to the Diamond except that the base is square or slightly rounded. In most square based specimens the base has been thinned by the removal of lateral flakes from both faces. The cross-section is roughly lenticular.

SIDE-NOTCHED (Fig. 11) Total 14, W.Q. 2, Quartz Crystal 1, Shale 1, Felsite 10

Side-notched points are not too plentiful at Wapanucket #6. In sub-type #1 the blade forms an isosceles triangle but in the other sub-types the blade sides tend to be curvilinear. The flaking in all specimens is bold but fine retouching is sometimes visible along the sides of the blade. The average length is between 4 and 7 cm. (1½" and 2-3/4") but specimens vary considerably in width.

SUB-TYPE #1

The single specimen of this sub-type found at Wapanucket #6 is 3.5 cm (1-3/8") wide at the junction of stem and blade. The sides of the stem form slightly sloping shoulders at the base of the blade and then curve sharply outward so that the stem widens at its base.

SUB-TYPE #3

These are long narrow points. The flaking is rough with slight retouching along the sides. The cross-section is roughly lenticular but often one face of the blade is more convex than the other. The stem is formed by slight indentations on both sides. The base of the stem is thinned, often by the removal of a single flake from both faces.

SUB-TYPE #5

Points of this sub-type are generally smaller than other side-notched points. The same bold flaking occurs but the stem is formed by less abrupt curves and the base is wider in relation to the blade.

CORNER-REMOVED (Fig. 12) Total 111, W.Q. 24, Quartz Crystal 1, Quartzite 8, Felsite 47, Shale 27, Argilite 2, Flint 2

This type of point ranks fourth in preference at Wapanucket #6 if all types are considered but is first in number among the large stemmed points. Five of the sub-types described in the classification are present.

SUB-TYPE #2

This sub-type is represented by only three specimens. The blade is curvilinear, the flaking bold but the retouching is fine and well executed. The stem is formed by a slight constriction, the blade being but slightly wider than the stem. The sides of the stem are parallel and the cross-section is lenticular. The base is slightly concave and has been thinned centrally by the removal of lateral flakes from both faces. The corners of the basal portion of the stem are quite sharp. The Wapanucket specimens of this type average 5 cm. (2") in length by 3 cm. (1-1/8") in width.

SUB-TYPE #3

Corner-removed points of this sub-type are narrow, averaging slightly more than 5 cm. (2") in length by 1.5 cm. (5/8") in width. The sides of the blade tend to be curvilinear. The stem is slightly narrower than the blade and its sides are parallel. The base has been thinned by the removal of lateral flakes from both faces. In a few specimens the base is convex.

SUB-TYPE #5

Points of this sub-type vary from 4 to 5 cm. in length (1½" to 2") and are about 2.5 cm. (1") in width. The blades are isosceles triangles. The stem is formed by sharp, and in some instances, hook-like, curves. Usually the sides of the stem are parallel but this is not universal. The base is concave or indented centrally and appears to be small and delicate compared with the bases of other sub-types.

SUB-TYPE #7

These are the heaviest of the corner-removed types. The specimens from Wapanucket #6 range from 4 to 7 cm. (1½" to 2½") in length and from 2.4 to 4 cm. (1" to 1½") in width. The flaking is rough and the retouching slight. Although the blades of some specimens are curvilinear the majority are straight and form isosceles triangles. The cross-section of some specimens are thin and flat while others are thick and definitely lenticular. The blade terminates in sharp angular corners or shoulders and the sides of the stem converge to a straight or slightly rounded base. The greatest width of the implement is across the base of the blade. The base of the stem has been thinned in the usual manner.

SUB-TYPES #8 and #9

These points are characterized by their stems which differ from those found in other sub-types. The blades are commonly isosceles triangles but occasional specimens have curvilinear sides. The cross-section is sometimes flat but is often lenticular. The stems are formed by long curves. In Sub-type #8 this stem is elongated and rather pointed although the base

is blunt while sub-type #9 has a shorter, rounded base. In both sub-types the bases have been thinned.

BIFURCATED (Fig. 12) Total 1, Felsite

The single specimen of this type found at Wapanucket #6 is 4 cm. ($1\frac{1}{2}$") in length and slightly greater than 3 cm. ($1\frac{1}{4}$") wide. The sides of the blade are curvilinear. Flake scars are quite large but are well controlled. The base is specialized. Deep diagonal notches produce long, sharply defined, extensions of the blade on both sides. The base is deeply notched centrally which divides the stem into two rounded projections. Small flakes struck off laterally on both faces thin the basal projections.

SPEAR OR LANCE POINTS (Fig. 13, Nos. 1 to 6) Total 35, W.Q. 7, Quartzite 9, Shale 6, Felsite 13

Certain chipped implements from Wapanucket #6 have been classified as spear or lance points because of their comparative size and weight. They vary in length from 7 to 18 cm. ($2\frac{1}{2}$" to 7") and in width from 2.5 to 5 cm. (1" to 2"). Otherwise their outlines conform to the several projectile point types to which they have been assigned. The workmanship is generally crude but secondary flaking has been employed in the finishing of some of the specimens, especially in those fashioned from white quartz and quartzite. Occasionally an especially well made artifact of this category appears. The blades are curvilinear and have lenticular cross-sections. A few are so worn that the flake scars are nearly obliterated (Fig. 13, #1) but this appears to be a function of the material from which they are made. The Wapanucket #6 specimens have been classified as follows:

Tapered Stem	- 13	Corner-Removed Type #1	- 2
Truncated	- 3	Type #2	- 2
Side-Notched	- 1	Type #3	- 6
Diamond	- 1	Type #5	- 1
Eared	- 1	Type #7	- 3
		Type #9	- 2

SMALL SCRAPERS (Fig. 13, No. 7 to No. 21) Total 145

The one hundred forty-five small scrapers from Wapanucket #6, which constitute 15.3% of the chipped stone artifacts, have been divided into several sub-types for descriptive purposes.

Numerically most important are the stemmed forms of which fifty-one or 35% of the total were found. Forty-six were of white quartz and five were of felsite. Aside from a definite stem these artifacts differ considerably in blade shape. One shape (Fig. 13, No. 14) is best described as a modified oval. Several of this sub-type appeared and all demonstrate excellent chipping technique. The scars of primary flaking have been nearly obliterated by pressure flaking on all surfaces. The blade is rounded and the stem, which is formed by a slight constriction of the sides, has a rounded base. The cross-section is lenticular. In several of this type the base has been centrally thinned by the removal of a single large flake from both sides.

In a second group of these scrapers the workmanship is much more crude. In this type the blade is crescentric and has been sharpened by the removal of very tiny flakes. At the junction of blade and stem the

sides curve sharply inward creating sharp shoulders at both ends of the cutting edge (Fig. 13, No. 13 and No. 17). The stem is elongated and narrow compared with the blade, and sometimes has a rather pointed base. Primary flake scars are usually prominent on both faces of the implement.

Another group of small scrapers seem to have been fashioned from broken projectile points (Fig. 13, No. 8, No. 10, No. 20, No 21). The shape of these artifacts is determined by that of the original implement, for example No. 21 is made from a small stemmed point while No. 10 appears to have been the basal portion of a spear or large stemmed point.

Next in numerical importance are the oval, rectangular and triangular forms which have been considered as a group for descriptive purposes. These differ little among themselves except in outline. A total of forty-six of these artifacts are recorded from the site, they constitute nearly 32% of the small scrapers. White quartz has been used in the manufacture of thirty-seven or 80% of this sub-type, the balance are of felsite. For the most part these artifacts are obviously made from flakes which are unmodified except for one or more retouched or sharpened sides. The rectangular forms often resemble European gun flints (Fig. 13, Nos. 7, 9, 18, 19). Thirty-nine of this sub-type were recovered constituting about 29% of the small scrapers. Of these nineteen, or 49%,,are of white quartz, seventeen, or 43.4% are of felsite, and three are made of a dense black stone thought to be basalt. The under face is a flat or nearly flat plane produced by a single percussion stroke. From this plane surface the sides rise at a steep angle to a rounded top. The overall appearance reminds one of bon-bon. What might be called the forward or cutting edge is sharpened by the removal of small flakes struck upward from the base.

Three small scrapers, one each of white quartz, quartz crystal, and felsite, have been called "hooked" scrapers (Fig. 13, No. 18). These are similar to the steep-edged variety except that the under surface has been worked so as to create a hooked blade at one end.

A number of irregularly shaped flakes in which one or more edges appear to have been used for scraping were found at Wapanucket #6. Six were retained for study, four of white quartz and two of felsite. Probably many of these crude tools were present but went unrecognized.

CHIPPED KNIVES (Fig. 13, No. 22 to No. 32) Total 57

In general the chipped blades thought to have been used as knives are less carefully made than projectile points. These blades usually have a blunt or rounded point and at least one serrated cutting edge. Another prominent characteristic is the asymetrical relationship between stem and blade. There is considerable variation among the fifty-seven knives found at Wapanucket #6. Of these 29 (50%) are of white quartz, 19 (34%) of felsite, 4 of argilite, 4 of shale, and one is flint.

Stemless types (including leaf type) predominate, twenty-eight of these artifacts were found. (Fig. 13, No. 22, No. 24, No.25, No. 26, No. 27, No. 28, No. 29) The stemmed type is represented by twenty specimens (Fig. 13, No. 30, No. 31, No. 32).

One rather unique specimen (Fig. 13, No. 33) appeared. This artifact is 17 cm. (6½") long and 4.5 cm. (1-3/4") wide at the base. The basal thickness is about 7 mm. (¼") Both faces have been ground but the original flake scars are not completely obliterated in the process. Its upper

or straight edge has also been ground to a blunt V-shape along its entire length. The opposite or cutting edge curves upward to meet the upper edge in a sharp point. The cutting edge has been ground to a sharp V-shape. At approximately 9.5 cm. (3-3/4") from the base the cutting edge is interrupted for a distance of 3 cm. (1¼") by a series of saw teeth. This implement might well have been included in the polished stone category.

Although the shape does not appear in the classification used, two double pointed forms of felsite have been included as knives. (Fig. 13, No. 23) These are better made than the usual chipped knife.

Six additional specimens of somewhat irregular shape (Fig. 13, No. 45, No. 46, No. 47) complete the knife category. These implements are thought to have been wood working tools as described in the classification system where they are called "notchers". They are rather large fragments of white quartz or felsite and have well defined, serrated, cutting edges.

DRILLS (Fig. 3, No. 34 to No. 44) Total 17

Excluding thirteen fragments, drills or perforators from the Wapanucket #6 site number seventeen. Three additional implements also may have been used as drills but, as they vary considerably from the usual form, they have been described as aberrant forms. Of the seventeen drills, thirteen are fashioned from felsite, three are of shale, and one is quartzite. These tools constitute nearly 2% of the chipped forms from this site. Shale seems to be a rather soft material to be used in drilling or perforating but it can be used effectively in working steatite or other less resistant materials. According to basal shapes the drills have been classified as follows:

Expanded Base	- 4 Fig. 13, No. 44	Side-Notched	- 1 Fig. 13, No. 35
T-Based	- 3 Fig. 13, No. 37	Diamond	- 1 Fig. 13, No. 39
Eared	- 3 Fig. 13, No. 38	Splinter	- 3 Fig. 13, No. 34
Cross-Based	- 2 Fig. 13, No. 36		

Except for the so-called splinter type, these implements are rather well made, this is especially noticeable in the Eared types.

ABERRANTFORMS

Several of the chipped artifacts which appeared at Wapanucket #6 are difficult to classify functionally.

Fig. 13, No. 41, represents a small, delicately made implement of white quartz. It resembles a T-Based drill, measuring 2.5 cm. (1") across the base and 2.5 cm. (1") from base to point. At one end the base terminates in a rounded blade which has been sharpened by lateral flaking. The opposite basal extremity is also slightly rounded but is only about one-third the width of the former extremity. The drill portion of the artifact is extremely sharp.

Fig. 13, No. 40 is similar in shape to a small stemmed projectile point except that the lower portion of the blade has sharply incurvate sides which form a drill-like point.

Fig. 13, No. 42 is a broken felsite implement which seems to have been designed to perform more than one function. Complete, it was approxi-

mately 10.5 cm. (4") long and its expanded base was 2 cm. (7/8") wide. The missing end was probably used as a drill or perforator. The expanded base is rather pointed and both sides have been intentionally sharpened by the removal of small flakes probably for use as a reamer.

POLISHED STONE ARTIFACTS Total 50

Included in this category are gouges, adze blades, grooved axes, atl-atl weights, pestles, plummets, semi-lunar knives, steatite vessel sherds, a slate tablet and a tally stone. A number of unidentifiable fragments of pecked and polished artifacts are also described under this heading. Exclusive of steatite vessel sherds and unidentifiable fragments the pecked and polished artifacts constitute better than 5% of the total artifacts. If we were to include fragmentary forms the ratio would be something higher than 6%.

GOUGES Total 12 (Fig. 6 and Fig. 14, No. 1 and No. 2)

Gouges are fairly plentiful at Wapanucket #6 numbering nine complete, two broken, and one in the process of manufacture. Four additional fragments are recorded which are certainly portions of this type of artifact. All are of the plain variety. These artifacts are manufactured by the pecking and grinding process and vary in size from 7 by 4 cm. (2½" by 1½") to 13.5 by 6 cm. (5½" by 2½"). All but two specimens have shallow concave blades extending nearly the full length of the implement, (Fig. 14, #1) the others have short blades (Fig. 14, #2). The material, a dark gray stone thought to be basalt, is used in each instance. In the complete specimens the polls are battered and the polished cutting edges are fractured by use. The unfinished specimen has been battered into rough shape but no grinding has been done. A broken gouge from Burial #2 is interesting in that parallel channels have been produced by pecking and grinding but the ridge separating the channels is still present.

The complete gouges have been typed as follows:

Type 3 - 1
Type 4 - 4 (All from Burial #2)
Type 5 - 4

ADZE BLADES (Fig. 14, No. 3, No. 4, No. 5) Total 3

Three complete adze blades were recovered at Wapanucket #6. Two are nearly of a size, 8.5 cm. (3½") in length by 4 cm. (1½") in width at the cutting edge. These implements are also made by the pecking and grinding process, the cutting edge in particular being ground very smoothly. The cross-section is flat on one side and convex on the other. In one of these implements (Fig. 14, #5) a bevel exists along one edge but it is difficult to determine whether or not this is intentional. The cutting edges are damaged by use. The third specimen is beautifully finished. It is 9.5 cm. (3-3/4") in length and 2.5 cm. (1") wide at the cutting edge (Fig. 14, #3). The entire surface of this artifact has been ground and polished, no pecking marks are visible. In cross-section it is lenticular and the cutting edge is very delicate. No marks of use are apparent on this artifact.

GROOVED AXE (Fig. 14, No. 23) Total 1

A single specimen of this implement was found at Wapanucket #6. It was taken from the yellow soil at a depth of 18 cm. (7") below the junction of yellow soil and loam. It is 7.5 cm. (2-7/8") wide at the cutting edge and 10 cm. (3-7/8") in length. It has been roughly pecked into shape and the blade is ground slightly. A full groove encircles the artifact about 3.5 cm. (1-3/8") from the top. The upper end of the poll above the groove is much smaller in diameter than the lower portion of the implement

PESTLES (Fig. 16, No. 4 and No. 5) Total 14

Six complete and eight broken pestles were recovered. Except for two instances in which granite was used, these artifacts are made from a fine grained sandstone. Elongate pebbles of appropriate size and shape were pecked into shape and completed by a minimum amount of grinding. The granite specimens are rough and do not seem to have been ground. The complete specimens vary from 31 cm. (12½") to 15 cm. (5-3/4") in length and their greatest diameter varies from 6 cm. (2-3/8") to 4 cm. (1-5/8"). Four specimens, which are round in cross-section, taper slightly. Two are oval in cross-section, having flattened sides which appear to have been used as grinding surfaces. One of the granite implements is triangular in cross-section. The largest pestle may have been intended as an effigy as the smaller end bears scars which faintly suggest the muzzle of an animal.

PLUMMETS (Fig. 14, No. 21, No. 22, No. 20 and Fig. 6, No. 6) Total 5

Four plummets from the yellow soil zone and one from Burial #2 are recorded from Wapanucket #6. The implement from Burial #2 is round in cross-section, its largest diameter being about 3.8 cm. (1½"), the base is sharply pointed and the top is quite flat. A small knob 1 cm. (3/8") in diameter protrudes from the flat top. When found, this artifact was extremely fragile, surface cracks ran in all directions, and the pointed end was blunted by the brush used to remove the dirt. Its color was a dark chocolate brown but inclusions of some lighter colored mineral were visible on the surface, appearing as stick-like marks. At some points these stick-like marks were grouped so as to look like astericks. Another plummet from the site which was made from a hard gray stone bears similar surface inclusions. It is thought that a fire-making set may have been present in Burial #2 and that the iron pyrites element rested near the plummet which became involved in the disintegration of this unstable material. Two plummets are made from flattened oval pebbles (Fig. 14, No. 21 and No. 22) and measure 7.1 cm. (2-3/4") by 6.2 cm. (2") by 3.3 cm. (1½") and 6.7 cm. (2-5/8") by 6.2 cm. (2") by 3.8 cm. (1½") respectively. One (Fig. 14, No. 22) in which the pecking is prominent, is slightly elongate and has a large knob with a definite groove encircling its base. The second specimen is more nearly round in profile but its knob is equally prominent. A single exceptionally elongate specimen (Fig. 14, No. 20) measures 9 cm. (3½") in length and has a diameter of 3.5 cm. (1-3/8") just above the base,, which is rounded. The knob is broken. The poorest specimen found (Fig. 14, No. 21) is fashioned from a flat oval pebble and is 7.7 cm. (3") by 3.8 cm. (1½") by 1.7 cm. (½") in size. The only alterations of the original shape of the pebble are deeply battered notches on each side which form a crude knob.

ATL-ATL WEIGHTS (Fig. 14, No. 8, No. 13, No. 14) Total 4

The first implement found at Wapanucket #6 in a test square was one half of a bi-penate type of atl-atl weight (Fig. 14, No. 8). Included was about one half of the central perforation. The specimen is bifacially symetrical, is fashioned from banded slate, and bears a high polish. The bore is round and faint longitudinal striations appear within it. The projectile point (Fig. 14, No. 17) was associated with this bipenate form. The point is of white quartz and its outline, which is unique among the specimens from the site, would be typed as Eared #3.

A second bipenate form is rectangular (Fig. 14, No. 13). This is an incompleted artifact, the surface is not ground and peck marks are visible. It measures 6.5 cm. (2½") by 3 cm. (1¼"). One side or face is missing and its central perforation, which is about 1.3 cm. (5/16") in diameter has penetrated only to a depth of 6.5 mm. (5/8"). The circular scoring made by the drill is noticeable and at the bottom of the perforation the pit left by a hollow drill is present.

Parts of two pebble-type atl-atl weights complete the category. One consists of an oval pebble perforated centrally along its greatest length but broken along this perforation. In this type of weight an external groove is usually present parallel to its internal perforation but the portion of this artifact recovered does not reveal this feature. The second of these pebble type artifacts is a unique specimen (Fig. 14, No. 14). The portion recovered is rectangular in cross-section and all of its unbroken surfaces are ground. It measures 4 cm. (1-5/8") in length and 2.5 cm. (1") in width but is broken along its central perforation and again at right angles to it. The perforation has a diameter of 1.4 cm. (9/16") and longitudinal striations appear within it. A groove 1.2 cm. (½") in width and 2 mm. (1/16") in depth has been ground in its upper surface. Both edges of the upper surface bear tally marks at right angles to the groove.

SEMI-LUNAR KNIVES (Fig. 16) Total 8

The presence of this diagnostic implement and its vertical distribution at Wapanucket #6 is significant. Eight of these artifacts, two complete and six broken, were recovered. Two fragments were found to be parts of a single specimen. The larger of the complete specimens was taken from Burial #3. (Fig. 6, No. 9 and Fig. 16, No. 1) It is made of banded slate and differs from the usual shape in that both edges are curved. It measures 19.7 cm. (7-3/4") from point to point and is 9 cm. (3½") wide at the center. The specimen is quite thin, hardly 7 mm (¼") at its thickest point. One of the curved edges is blunted or squared and the opposite edge has been sharpened by grinding.

The smaller of the complete specimens is 7 cm. (2-3/4") by 4.5 cm. (1-3/4") in size. (Fig. 16, No. 6) The upper or straight edge is a bit irregular but the curved cutting edge is sharp although marred through use. It was found at a depth of 28 cm. (11") below the junction in the yellow soil.

Approximately one half of a chipped semi-lunar knife was found in the loam. The length is, of course, not known but its width is approximately 7.5 cm. (2-3/4") Both faces are pecked and the cutting edge is roughly chipped. Some small amount of grinding is evident near the upper edge on both faces. This may be an unfinished specimen (Fig. 16, No. 5).

The remaining five fragments represent four knives, two of which are of the comb-back variety. Two fragments, which are the parts of a single specimen, came from Lodge Floor #6, one from the junction or floor and the other from the yellow soil zone at a depth of 20 cm. (10-3/4"). Of the remaining three fragments two were found at 8 cm. (3¼") below the junction and the other at 17 cm. (6-3/4") below the junction in the yellow soil zone. (Fig. 16, No. 2 and No. 3)

POLISHED TABLET (Fig. 14, No. 12)

A rectangular tablet of gray slate is 8 cm. (3-1/8") in length and varies in width from 3 cm. (1½") to 4 cm.(1-3/4"). It is 6 mm. (¼") in thickness. The ends are slightly rounded and the edges quite flat; all surfaces are ground and polished. This artifact was found at a depth of 7 cm. (2-3/4") below the junction in the yellow soil zone.

TALLY STONE (Fig. 14, No. 16)

An irregularly shaped fragment of slate. Two of its edges have been ground but a third edge is broken. The fourth bears twenty-one transverse notches or tally marks.

INSCRIBED PEBBLE (Fig. 14, No. 6)

Although this artifact was not found at Wapanucket #6 proper, it was recovered from a point near Crematory #3 and is believed to be associated with the complex found at the site. A felsitic pebble 10 cm. (4") by 4.5 cm. (2") by 3 cm. (1¼") was used. The prominent feature of the artifact is an incised and pecked figure which appears on one face. The figure is 3.7 cm. (1½") high by 2 cm. (3-3/4") across the wings or arms. The head, which is turned to the left, appears in profile and is represented by a triangular scar. The arms or wings are also triangular in shape. Except for a space of 6 cm. (2¼") on the left side, the entire periphery of the pebble is deeply pecked. On the right side a small groove or indentation appears and on the opposite side seven deep lines have been incised at a right angle to the face of the pebble. A number of longitudinal scars appear to the right of the figure and the reverse is deeply scarred longitudinally. Although the pebble is not broken, a series of surface scars suggest that it has been exposed to considerable heat. Another similar artifact was found at Wapanucket #3 and a similar figure appears on a large rock near the shore of the lake.

STONE BOWL FRAGMENTS (Fig. 15, No. 2 and No. 3) Total 9

Nine stone bowl fragments, all of steatite, were recovered at Wapanucket #6. Of these, three came from Pit #48 and are assumed to be parts of a single vessel although they are not contiguous. A large fragment from an unfinished bowl with one lug or handle (Fig. 15, No. 2) was found in the yellow soil zone at 19 cm. (7½") below the junction. The deep scars made by the shaping tool are prominent, especially on the interior surfaces and about the base of the lug. The sherd is fairly thick measuring about 3 cm. (1-1/8") at the broken edge. A rim section from a smaller finished vessel (Fig. 15, No. 3) was taken from Lodge Floor #4. Its greatest thickness was 1.5 cm. (5/8"). Of the remaining four sherds, three appeared in the loam and one was found at a depth of 18 cm. (7") in the yellow soil zone. Two of these are from finished bowls while the other two are deeply scored. Differences in texture, curvature, and thickness

indicate that all except those from Pit #48 are from different vessels. The presence of at least seven stone bowls is indicated.

DOUBLE POINTED OBJECT (Fig. 14, No. 18)

A ground slate object which remains unidentified functionally, is 5.75 cm. (2¼") in length by 2.3 cm. (7/8") wide at its center. It is pointed at either end. At the center on both faces are small pecked surfaces from which medial lines run to both ends. The rest of the surfaces are the product of a grinding technique. The curved edges are quite sharp and are marred through use.

WOODEN DISH (Fig. 15, No. 15)

An oval wooden dish, measuring 17 cm. (6 3/4") by 15 cm. (6") was taken from Pit #9 at a depth of 22 cm. (8-3/4") from the top of the feature. This artifact had nearly been destroyed by fire and was practically a cinder. Althoughexceedingly fragile, sufficient of it was recovered intact to permit restoration.

FRAGMENTS OF GROUND STONE (Fig. 14, No. 15 and Fig. 16, No. 4) Total 15

Fifteen fragments of slate and shale with one or more ground surfaces were recorded. Included are three specimens in which scored lines are present. These fragments are not included in the count of polished artifacts. Some are obviously parts of artifacts while others may be simply by-products of the industry.

ROUGH STONE ARTIFACTS

Rough stone objects from the Wapanucket #6 site total 181 or approximately 15% of the total artifacts which could be typed. The functional terms used to classify several of the rough stone objects should not be considered dogmatically but simply as a convenient means of expressing a possible use to which they may have been put.

LARGE SCRAPERS (Fig. 15, No. 16 and No. 17) Total 31

Thirty-one artifacts in this category, or about 19% of the rough stone objects, have been classified as large scrapers. Except for two stemmed forms (Fig. 15, #13) all seem to have been hand tools. The majority are made of sandstone, the abrasive character of which lends credence to the supposed function of the artifact. They vary considerably in both size and shape. Although the oval form seems to have been preferred, there are rectangular, round, pointed, and stemmed forms. Many are so battered and broken that their original shape is doubtful. In size they vary from 3.9 cm. (1½") by 2.9 cm. (1-1/8") to 24 cm. (9") by 10 cm. (4"). These objects are roughly made, the working edge, usually from one half to two thirds of the periphery of the implement, is often sinuous, large flakes having been struck off alternately from both faces. The sharpened edges show considerable wear and, in the oval types, this wear is sometimes confined to one end or to one of the longer sides. The stemmed type, of which three were found, appear to have been haftedbut their working edge has the same type of wear as that found in the other varieties. These stemmed forms, however, may have been chipped axes which have become broken through use.

WHETSTONES (Fig. 6, No. 5, No. 7 No. 8 and Fig. 14, No. 7) Total 8

Only eight of these artifacts are recorded from Wapanucket #6. Possibly, as these are simply elongate pebbles and the only alteration is the smooth facets produced by use, many have gone unrecognized. Two were taken from Burial #2 where they were associated with four gouges and a plummet. One of these is an elongate pebble of abrasive material, probably sandstone, and the other a pencil-like form bearing considerable evidence of use. A third pebble, unaltered except by use, was found in Burial #3 where it was associated with a large semi-lunar knife. A small abrasive pebble (Fig. 14, No. 7) has been rubbed flat at both ends. The remaining four are similar to those from the burials.

HAMMERSTONES (Fig. 15,(No. 1 and No. 10)Total 41

Forty-one hammerstones were sufficiently obvious to be considered as rough stone tools, doubtless many other stones which had been used as hammers went unrecognized. These constitute about 22% of the rough stone tools. These water worn pebbles of various hard materials, granites, quartzite, and white quartz, exhibit the scars of use, sometimes only on one end but often on two ends or about their entire periphery. They vary considerably in size including pebbles of a diameter of 2.5 cm. (1") and large stones measuring 10 to 12 cm. (4" to 5") in diameter.

GAMING STONES (Fig. 15, No. 4) Total 5

Five small pebbles were retained because of their polished surfaces. These have been called gaming stones even though we have no specific knowledge concerning their use as such. All tend to be spherical and quite smooth except the illustrated specimen which has several flattened surfaces. These stones may be natural forms.

PERFORATED STONES (Fig. 14, No. 9) Total 2

Only two of these perforated stones were found at Wapanucket #6, one at the junction and another four centimeters lower (2") in the yellow soil zone. These are flat, water worn pebbles, 4.5 cm. and 5 cm. (1-3/4" and 2") in diameter. A conical depression, approximately 2.5 cm. (1") in diameter at the surface of the stone, has been pecked on both faces meeting centrally in a perforation about 3 mm. (1/8") in diameter. Their function is not known.

NOTCHED AND GROOVED WEIGHTS (Fig. 15, No. 11, No. 12) Total 36

These objects are commonly called netsinkers and are thought to have been used for weighting the lower edge of a net used in fishing. If this indeed be their function it is strange that a greater number have not been recovered from this site located adjacent to such a large body of water. Then again we do not know certainly that these people made or used nets. Thirty-one of the side-notched variety, ovate, round or rectangular in shape, and five of the grooved variety were found. It has been suggested that some of these artifacts may have been used as hafted hammers but a careful examination has failed to produce a single specimen that is battered by such use at either end. The grooved variety were made from more symetrical pebbles in which a groove completely encircles the artifact, often about its longest diameter. In three instances these grooves are made by percussion but in two instances the groove is rubbed or ground. The weights vary from a few ounces to something over a pound.

METATES OR ANVIL STONES Total 7

Precisely how an anvil differs from a metate is not too clear to the writer. Common usage of the terms assumes that one grinds food upon the surface of a metate but that an anvil serves as a surface upon which to rest a stone in the process of percussion flaking. The specimens found at Wapanucket #6 seem to have been subjected to both grinding and battering. A total of seven appear in our records. These are rather large stones from 30 to 50 cm. (12" to 20") across their upper surfaces. In three instances the under surface has been slightly altered by battering apparently to cause the stone to rest evenly on the ground with its upper surface approximately parallel to it. The upper or working surfaces vary from flat to slightly concave. A number of rough stones have a scarified surface suggesting transitory use as an anvil.

MULLERS (Fig. 18, No. 3) Total 1

A single specimen warrants inclusion in this category. It was found in association with an anvil or metate near Lodge Floor #5. This is a round pebble of sandstone, 8.5 cm. (3 3/8") in diameter and 3.5 cm (1-3/8") in thickness. The two flattened surfaces are smoothed by use.

HEMATITE AND GRAPHITE PAINT STONES (Fig.14, No. 19) Total 11

The use of pigments at Wapanucket #6 is confirmed by the presence of finely powdered hematite (red paint) in Burial #2 and also in a small cache of chipped artifacts, as well as by the finding of solid fragments of both hematite and graphite. These fragments are scarified by scraping to obtain the prized pigments. Nine pieces of graphite and two of hematite are recorded.

CHIPPED AXES (Fig. 14, No. 10 and No. 11) Total 2

Two artifacts have been classified as chipped axes. The implements are fashioned by rough percussion flaking in a manner similar to that of large scrapers but are differentiated from them on the basis of blade shape, modification for hafting, and the absence of the kind of wear always present in scrapers. Both specimens are made of sandstone and measure 9 cm. (3-5/8") by 4.5 cm. (1-3/4") by 1.7 cm. (3/4") and 12 cm. (4-3/4") by 6 cm. (2¼") by 1.5 cm. (5/8") respectively.

PICKS (Fig. 15, No. 5) Total 4

Four large elongate objects which terminate in three-cornered points are assumed to be picks. These artifacts vary from 16 to 20 cm. (6-3/8" to 8") in length and weigh about two pounds each. They are roughly triangular in cross-section.

HAFTED HAMMER OR MAUL (Fig. 15, No. 14) Total 1

This is a large rectangular pebble weighing about two pounds. It is 11 cm. (4½") in length and 5.5 cm. (2-1/8") by 6 cm. (2¼") square. A groove has been pecked centrally about the small diameter and one end is battered by use.

CLEAVER (Fig. 18, No. 2)

For want of a better term this rough stone implement has been called a cleaver although such a function cannot be assigned to it with any degree of certainty. It consists of a rough slab of shale 34 cm. (13½") in length, 11.5 cm. (4½") wide and 1.5 cm. (5/8") thick. One end has been reduced in width by the removal of one corner so that a handle is suggested. The opposite end is squared. Starting at the "so called" handle the edges of the implement have been given a sinuous cutting edge by the removal of rather large flakes alternately from both sides and across the squared end.

SPADES (Fig. 18, No. 1) Total 2

Two rough stone objects which are thought to have been used as digging tools are included in the trait list. These are large, flat, sandstone objects. Opposing notches have been battered in the sides near the smaller end as if to provide a means of attaching a handle. The larger end is considerably scarred and broken by use.

MISCELLANEOUS TOOLS Total 11

Eleven rough stone objects remain to be described. An oval sandstone fragment 9 cm. (3-5/8") long by 5 cm. (2") in width has been called a saw because of the presence of saw-like teeth about its periphery (Fig. 15, No. 9). In cross-section this artifact has one flat side while the reverse presents convex and concave surfaces meeting along a medial line. The teeth appear to be worn considerably. Trial has proven this tool to be very effective in cutting a groove in either soft stone, wood or bone, by repeatedly running it back and forth on the same track.

Eight objects fashioned from white quartz remind one of the tools found by Fowler at the Ragged Mountain Site in Connecticut (30) and thought by him to be tools for wood working and for the fashioning of stone bowls. Seven of these tools have blades which resemble those of the semi-lunar knife and their upper edges or backs are relatively thick (Fig. 18, Nos. 6, 7, 8). In two instances a large fragment has been struck off this thickened upper edge at an angle to one face of the object. The cutting edges of these tools are sinuous, large flakes having been struck off alternately from both faces. The eighth implement is similar to those described above except that its thickened edge forms a truncated pyramid.

A large spade-shaped artifact of quartzite has a rounded blade which is broken. A rudimentary stem is present. This artifact is percussion flaked and is very rough. The cutting edge is sinuous and produced in the usual manner by alternate flaking. It measures 13 cm. (5") by 10 cm. (4") by 3 cm. (1¼").

A final tool consists of an oval pebble from which large primary flakes have been struck to produce a cutting edge. The upper surface is unmodified, the original surface of the pebble being left apparently to provide a smooth grip.

ARTIFACTS

TRAIT LIST
WAPANUCKET #6

CHIPPED STONE

PROJECTILE POINTS=		
LARGE TRIANGULAR	5	
SMALL TRIANGULAR	239	TYPE #3 - 2 TYPE #4 - 123 TYPE #5 - 23 TYPE #6 - 91
SMALL STEMMED	166	
TAPERED STEM	46	
TRUNCATED	8	
DIAMOND	5	
SIDE-NOTCHED	14	TYPE #1 - 1 TYPE #3 - 7 TYPE #5 - 6
EARED	78	TYPE #1 - 67 TYPE #2 - 1 TYPE #3 - 1 TYPE #4 - 9
LONG EARED	7	TYPE #1 - 5 TYPE #2 - 2
CORNER-REMOVED	111	TYPE #2 - 3 TYPE #3 - 38 TYPE #5 - 17 TYPE #7 - 18 TYPE #8 - 15 TYPE #9 - 20
BIFURCATED	1	
SPEAR OR LANCE POINTS		
TAPERED STEM	13	
TRUNCATED	3	
DIAMOND	1	
SIDE-NOTCHED	1	
EARED	1	
CORNER-NOTCHED	16	TYPE #1 - 2 TYPE #2 - 2 TYPE #3 - 6 TYPE #5 - 1 TYPE #7 - 3 TYPE #9 - 2
SMALL SCRAPERS		
STEMMED	51	
OVAL, RECTANGULAR, TRIANGULAR	46	
STEEP-EDGED	39	
HOOKED	3	
NOT TYPED	6	
CHIPPED KNIVES		
STEMLESS	28	
STEMMED	20	
IRREGULAR SHAPES	6	
DOUBLE POINTED	2	
LARGE NOT TYPED	1	
	55	

DRILLS	
EXPANDED BASE	4
T-BASED	3
EARED	3
CROSS-BASED	2
SIDE-NOTCHED	1
DIAMOND	1
SPLINTER	3
ABERRANT FORMS	3

POLISHED STONE ARTIFACTS

GOUGES	12
ADZE BLADES	3
GROOVED AXE	1
PESTLES	14
PLUMMETS	5
ATL-ATL WEIGHTS	4
SEMI-LUNAR KNIVES	8
TABLET	1
TALLY STONE	1
INSCRIBED PEBBLE	1
STONE BOWL FRAGMENTS	9
DOUBLE POINTED OBJECT	1
WOODEN DISH	1
FRAGMENTS OF GROUND STONE	15

ROUGH STONE OBJECTS

LARGE SCRAPERS	31
WHETSTONES	8
HAMMERSTONES	41
GAMING STONES	5
PERFORATED STONES	2
NOTCHED AND GROOVED WEIGHTS	36
METATES OR ANVIL STONES	7
MULLERS	1
HEMATITE AND GRAPHITE PAINT STONES	11
CHIPPED AXES	2
PICKS	4
HAFTED HAMMER	1
CLEAVER	1
SPADES	2
MISCELLANEOUS	11

MATERIALS USED FOR PROJECTILE POINTS

TYPE	W. QUARTZ	W. Q. CRYSTAL	Q'ITE	SHALE	FELSITE	ARGILITE	CHERT	FLINT	TOTAL
LARGE TRI.	2				3				5
S.T. - #3	1		1						2
S.T. - #4	120			2	1				123
S.T. - #5	21	1					1		23
S.T. - #6	65	11		6	8	1			91
SMALL STEM	158				7	1			166
LONG EARED #1					5				5
LONG EARED #2	1				1				2
TRUNCATED				3	5				8
TAPERED STEM	31	3		2	9	1			46
DIAMOND	2			1	2				5
EARED #1	8		3	7	49				67
EARED #2					1				1
EARED #3					1				1
EARED #4				2	7				9
S.N. - #1	1								1
S.N. - #3					7				7
S.N. - #5	1	1	1		3				6
C.R. - #2	2				1				3
C.R. - #3	16		1	3	18				38
C.R. - #5	1		4	5	6	1			17
C.R. - #7	2	1		7	5	1		2	18
C.R. - #8			2	2	11				15
C.R. - #9	3		1	10	6				20
BIFURCATED					1				1
TOTALS	435	17	13	50	157	5	1	2	680
NOT TYPED	139	9	6	19	128	6			307
GRAND TOTAL	574	26	19	69	285	11	1	2	987

VERTICAL DISTRIBUTION OF ARTIFACTS

The horizontal location of every artifact, except chips, encountered during our excavations was recorded by triangulation from numbered stakes placed at two meter intervals to form the grid described under "Methods". Vertical position was determined from both the present surface and from the junction of loam and yellow soil. The type of soil in which each artifact rested, together with its relation to other artifacts or features, was recorded.

The vertical distribution was studied by placing the artifacts on a large table ruled vertically at five centimeter (2") intervals. The results for various implements and groups of implements were plotted on graph paper. Some of these curves follow.

For the purpose of study the artifacts from the site are divided into two categories - those which had been intentionally buried in caches or burials and those which had been inadvertantly deposited at various levels throughout the site. The graphs are concerned only with the latter group.

Before we can properly evaluate the data we must consider several factors which may have altered the original distribution of artifacts. We are aware, both from observation and history, that the area under excavation has been under continuous cultivation for many years and consequently that the upper twenty to twenty-five centimeters (9 to 12") of soil has been greatly disturbed. It seems reasonable to assume that the horizon known as the junction between loam and yellow soil is largely an artificial one and that the artifact distribution above it has been affected to a considerable degree. This assumption is confirmed by the peculiar but consistent shape of the several graphs above the junction.

Within an area from the K to the W squares and extending approximately twelve meters (40 feet) north and south of the base line were a large number of recent refuse pits. These pits extended from the present surface into the yellow soil zone and were doubtless responsible for some alteration of the vertical distribution of artifacts in that area. Added to this disturbance caused by human activity, is that wrought by natural causes such as frost, erosion, and rodent burrowing.

It is, of course, impossible to determine precisely the effect of these several types of disturbances but it seems reasonable to assume that those artifacts found in the upper portion of the loam, within the plow zone, were out of their original order and that the majority of them were brought upward from the original surface and scattered horizontally in the direction of plowing. In our graphs we have shown the actual distribution but we have indicated the result of combining the number of implements from the loam and the junction. The testimony offered by the position of the tops of the majority of the post molds (546 molds), the hardened areas supposed to be the remnants of floors which were observed within several of the lodge enclosures, and the position of the tops of most of the pits and hearths, indicates that the surface in aboriginal times was slightly above the present junction of loam and yellow soil. However, this floor or horizon cannot be conceived as a plane without depth. As a direct result of occupation, a surface will be denuded of most of its natural cover and will be affected to a considerable degree by erosive action as well as by human occupation. It would seem that such an area might have a depth

possibly as great as ten to fifteen centimeters (4" to 6") and this has also been indicated in our graphs. The walls of lodges would serve to protect the immediate area from trampling and would also present an obstacle to aeolian borne soil so that these areas might reasonably be expected to be slightly elevated above the surrounding horizon.

In Graph No. 1 the vertical distribution of all artifacts with the exception of those found in caches, pits and burials, is shown. The peculiar configuration of the curve above the "occupation zone" is repeated, with some slight variations, in the majority of graphs of implements by type, and is assumed to be a function of the disturbance above this point and, in some measure, a vindication of our assumptions concerning the probable occupied horizon. It is worthy of note that 84.4% of the artifacts occurred at or above the lower limit of the occupation zone.

In Graph No. 2 the artifacts found in the loam are combined with those found at the junction resulting in an almost smooth curve which decreases with depth. This phenomena is repeated in the curves which follow and is taken as an indication that the artifacts from this site belong to a single category. The number of artifacts found at depths greater than fifteen centimeters (6") below the zone of occupation is small and variations in their distribution is insignificant. A comparison of the vertical distribution of triangular and stemmed points is shown in Graph No. 3. Above the junction triangular points, everywhere in the minority, increase while the stemmed variety decrease in numbers. This may be an indication that the pattern usually found on New England sites in which triangular points are most numerous in the upper levels is repeated here. However, when the number of these artifacts from the loam is added to that of the junction the two curves are similar and both peaks occur at about the same point within the occupation zone. The Graph No. 4 representing the distribution of total projectile points is similar to that of total implements. In Graph No. 5 a comparison of small stemmed points with large stemmed points repeats the relationship demonstrated as existing between triangular and stemmed points in Graph No. 3. Here is an indication that during the final phase of occupation smaller points, regardless of type, were favored over the larger heavier types. Again a combination of artifacts from the two upper levels convert the curves into smooth configurations and argue for the validity of the assumption that this combination represents more correctly their original distribution.

As it has been suggested that Bifurcated, Long Eared, and Corner-Removed types Nos. 2, 5, 8, 9 are somewhat older than Corner-Removed types Nos. 3, 7, Eared, Truncated, Tapered Stem, Corner-Notched, Side-Notched, and Diamond types, these types from the Wapanucket #6 site were combined into groups and their vertical distribution plotted in Graph No. 6. The resultant curves do not support this assumption as far as this site is concerned but may perhaps be taken as an indication of the homogenity of the cultural material from Wapanucket #6.

The curves of several of the types of projectile points which occurred in significant numbers at Wapanucket #6 are plotted in Graph No. 7. Except for further indication of the uniformity in vertical distribution of types at this site there is little of note in this graph. The number of spear or lance points is small but their distribution indicates that they occurred somewhat early in the occupation or that their greater weight and size affected the vertical distribution data. None of this type of implement appeared above the junction.

Small chipped scrapers, which are shown in Graph No. 8 assumed the usual curve and the total of rough stone implements conforms to the same monotonous distribution. Polished stone artifacts however, present a curve similar to that of the spear or lance points which may be an indication of a slightly earlier provenience. The curve of the larger rough scrapers, sometimes called choppers, is somewhat erratic but this may be simply the result of a failure to recognize and record all of these implements. Chipped knives conform closely to the common pattern.

Although few semi-lunar knives were found, the diagnostic value of this archaic artifact and its distribution at Wapanucket #6 is significant. As the curve shows, it occurred from the loam to a point twenty-five centimeters (10") below the junction; in other words, it was present throughout the entire vertical range as well as in Burial #3.

As shown in Graph No. 10 drills, pestles, gouges, paint stones, and plummets occur throughout the vertical distribution. Plummets tend to occur at slightly greater depths, but metates or anvil stones are confined to the occupation zone or upper levels. In the latter case this is probably a function of the size and weight of the artifact which tends to discourage displacement from its original location.

The curves of notched weights and grooved weights (Graph No. 11) show that both types were made and used throughout the entire period of occupation. The hammerstone curve, also shown in Graph No. 11, conforms in general to the other curves. Probably we again have the result of failure to recognize and record all of these rough tools.

Implements found in caches, pits, and hearths were not included in the above graphs and are described separately as follows:

CACHE IN SQUARE S-1

A slight disturbance was noted in the yellow soil at a depth of thirty centimeters, (12") below the junction but no definite outline could be traced. At a depth of ninety centimeters (36") below the junction four stemmed projectile points (3 corner-removed type #9 and 1 side-notched) were found. At ninety-three centimeters (37") four additional artifacts (1 eared type #1, 1 truncated projectile point, and 2 stemmed scrapers) appeared.

CACHE IN SQUARE S-23

This was a small cup-like pit 18 centimeters in diameter (7") and fourteen centimeters (5½") in depth. The top appeared at 10 centimeters (4") below the junction. This small pit was completely filled with sand heavily impregnated with red iron oxide (red paint) and contained the following artifacts: 1 corner-removed type #3 point, 3 drills (1 cross-based, 1 corner-removed type #3, and 1 combination drill and scraper) and 2 small scrapers of the steep edged variety.

CACHE IN LODGE FLOOR #2

While scraping the floor of Lodge Floor #2 in search of internal post molds, a shallow, sand filled, depression was noted. Its top was just beneath the hardened floor and its base was reached at eighteen centimeters (7") below the floor. In the basin-like depression were nine spear or

lance points of the truncated type varying from 7.5 cm. to 4.5 cm. (2-7/8" to 1-3/4") in length. These artifacts were made from a yellow to black variety of flint or chert and the workmanship was especially fine.

CACHE IN LODGE FLOOR #3

This cache was first thought to be a post mold. It appeared as a circular stain twelve centimeters (4-3/4") in diameter. However, it proved to be a small pit filled with dark soil and it contained seventy-four small projectile points all of white quartz. Forty-two are small triangular points (Type #4 - 31, Type #5 - 4, Type #6 - 7) and thirty two are small stemmed points. It is significant that these types occur together and in almost equal quantity in a single deposit.

In addition to the implements found in caches a number were taken from the various pits and hearths as follows:

PIT #1

This pit was found in the first square excavated at Wapanucket #6. This square is otherwise known as Test Square #1 and is described together with its content under that title. The broken atl-atl weight and white quartz point from this pit are shown in Fig. 14, No. 8 and No. 17.

PIT #4

A pear shaped, pebble hammerstone and the blade of a broken gouge were found in this pit.

PIT #5

A polishing or whetstone was recorded as appearing at the base of Pit #5.

PIT #9

A badly burned wooden dish or tray was taken from this pit as mentioned in the description of artifacts (Fig. 15, No. 15).

PIT #12

One projectile point is recorded from near the top of this pit. It is of quartzite and has been typed as corner-removed type #8. A white quartz oval scraper (Type #5) and a large pebble with several rubbed facets were found near the base of the pit.

PIT #20

A broken felsite projectile point which could not be typed was found in this pit near the top.

PIT #35

Two implements are recorded from this pit, a corner-removed Type #1 projectile point of felsite and a spear or lance point of the corner-removed variety made of quartzite.

PIT #38

A broken felsite point which could not be typed was taken from near the base of this pit.

PIT #40

A broken white quartz projectile point which could not be typed appeared about half way from the top of this pit.

PIT #42

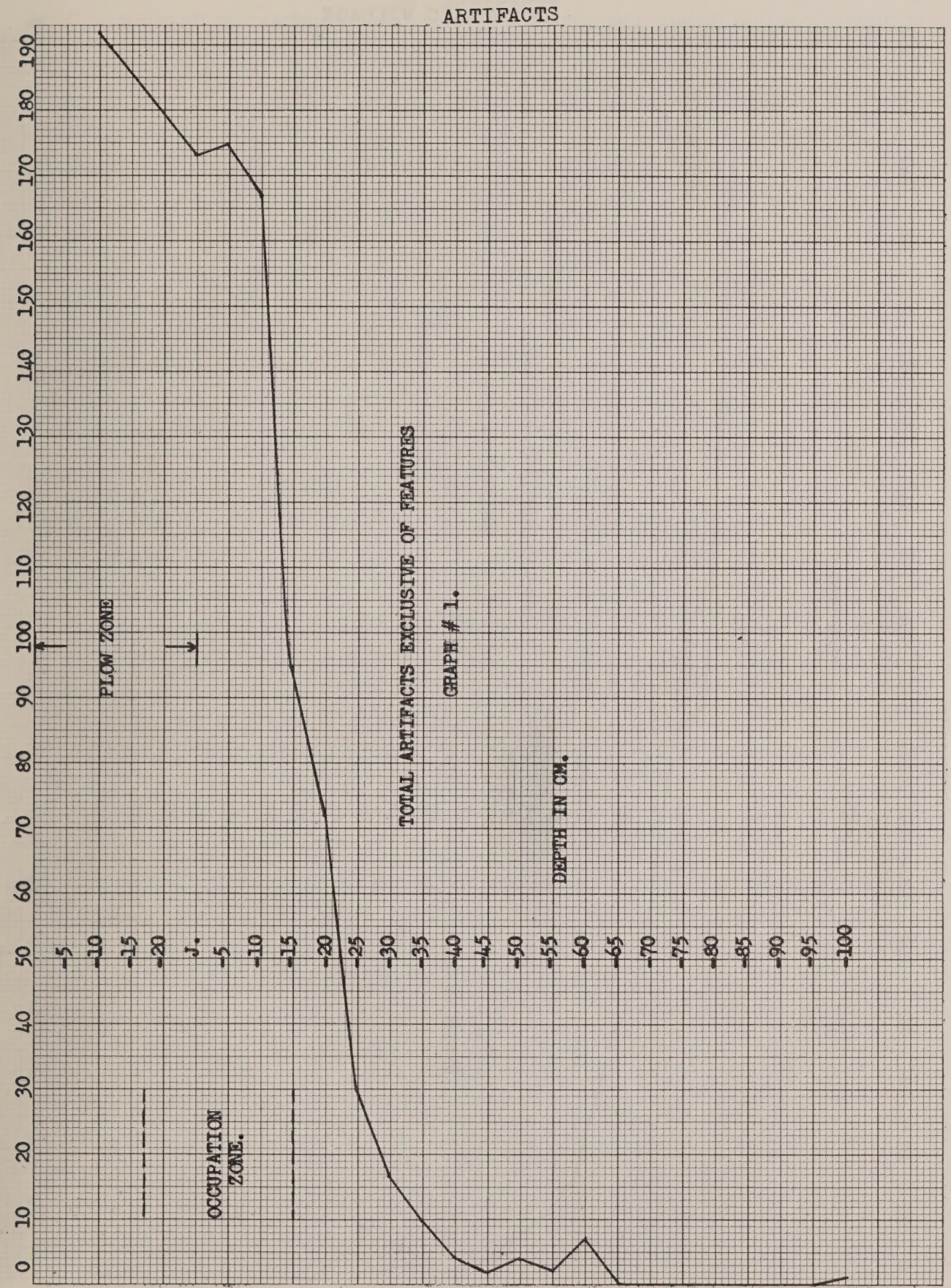
From this pit was taken a stemless knife of white quartz.

PIT #48

A small white quartz stemmed point and three sherds from a steatite vessel were found in this pit. Their precise location within the pit has been described above.

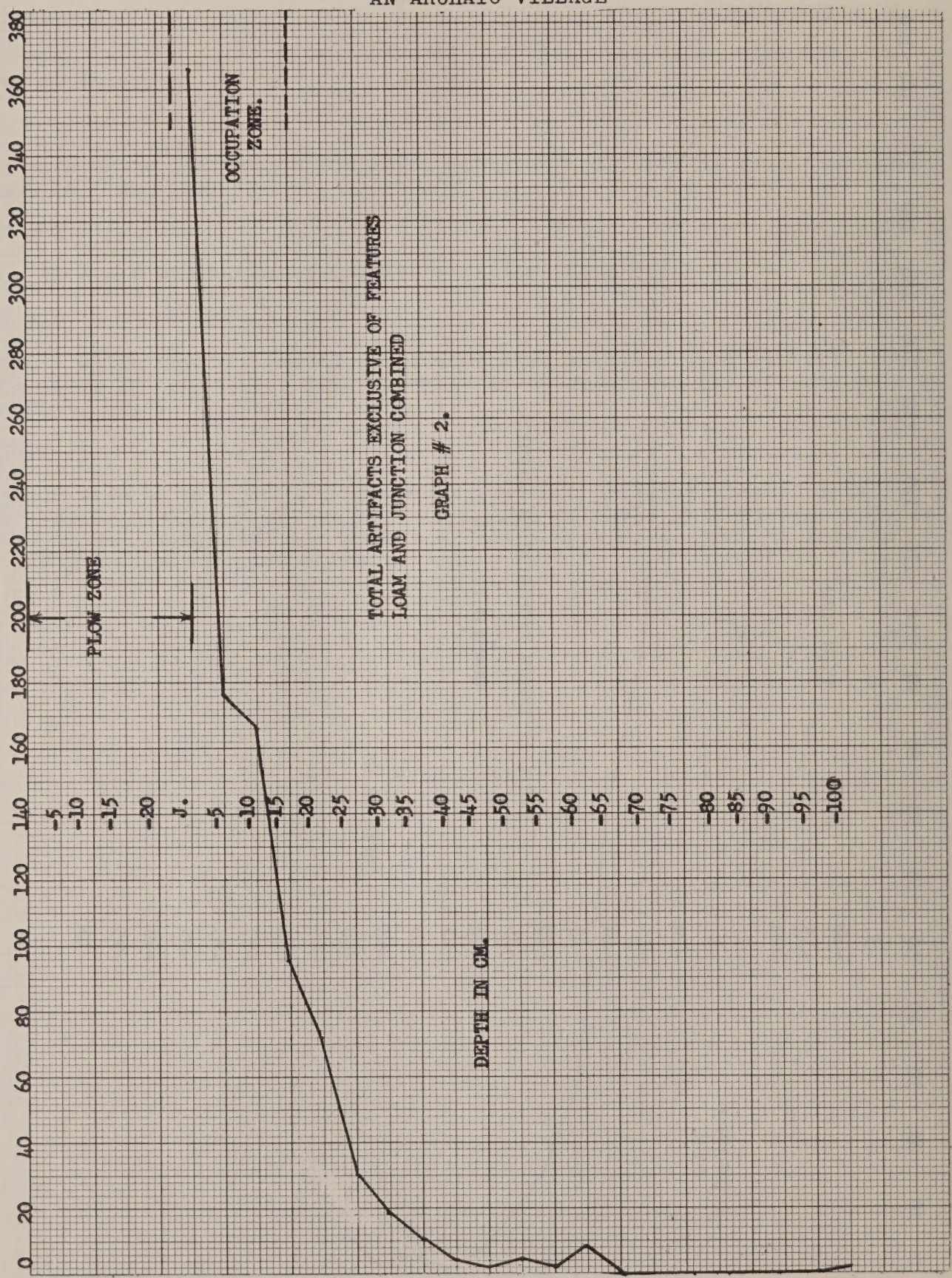
HEARTH #1

A small stemmed scraper of white quartz with a crescent shaped blade lay near the edge of this hearth and a fragment of shale with rubbed or polished edges was found near the center of the hearth at a depth of five cm (1-7/8") in the charcoal content.



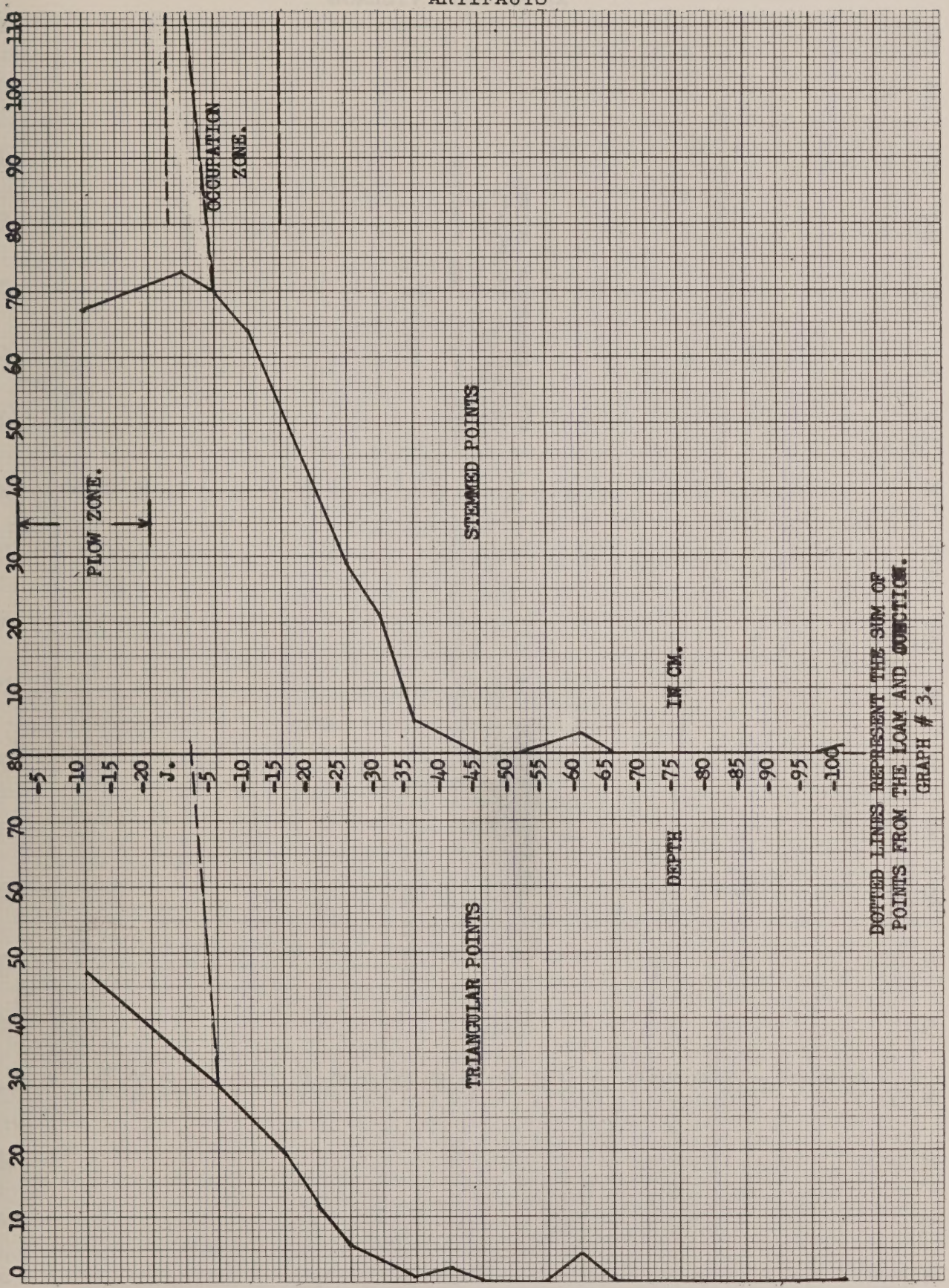
TOTAL ARTIFACTS EXCLUSIVE OF FEATURES

GRAPH # 1.

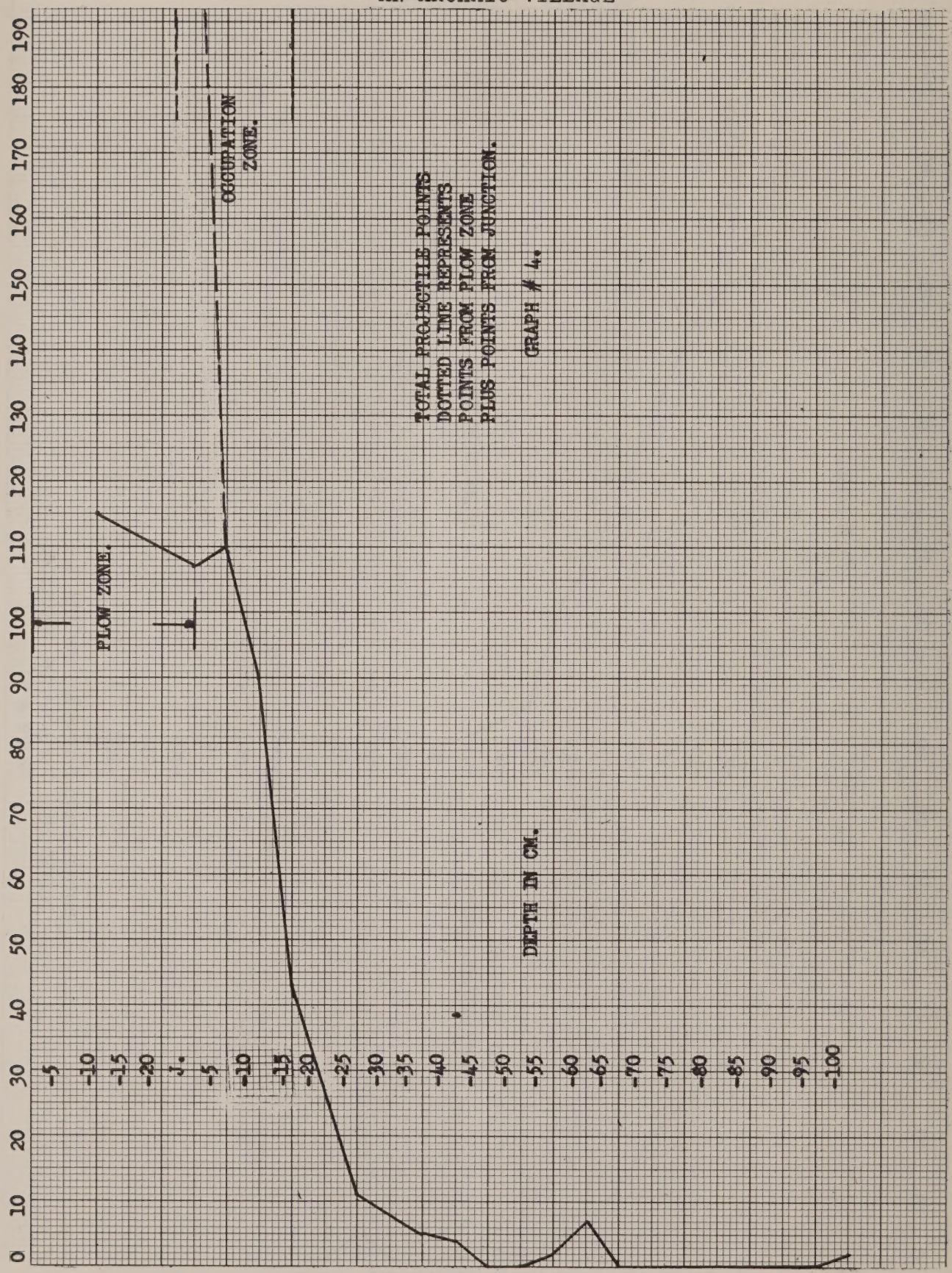


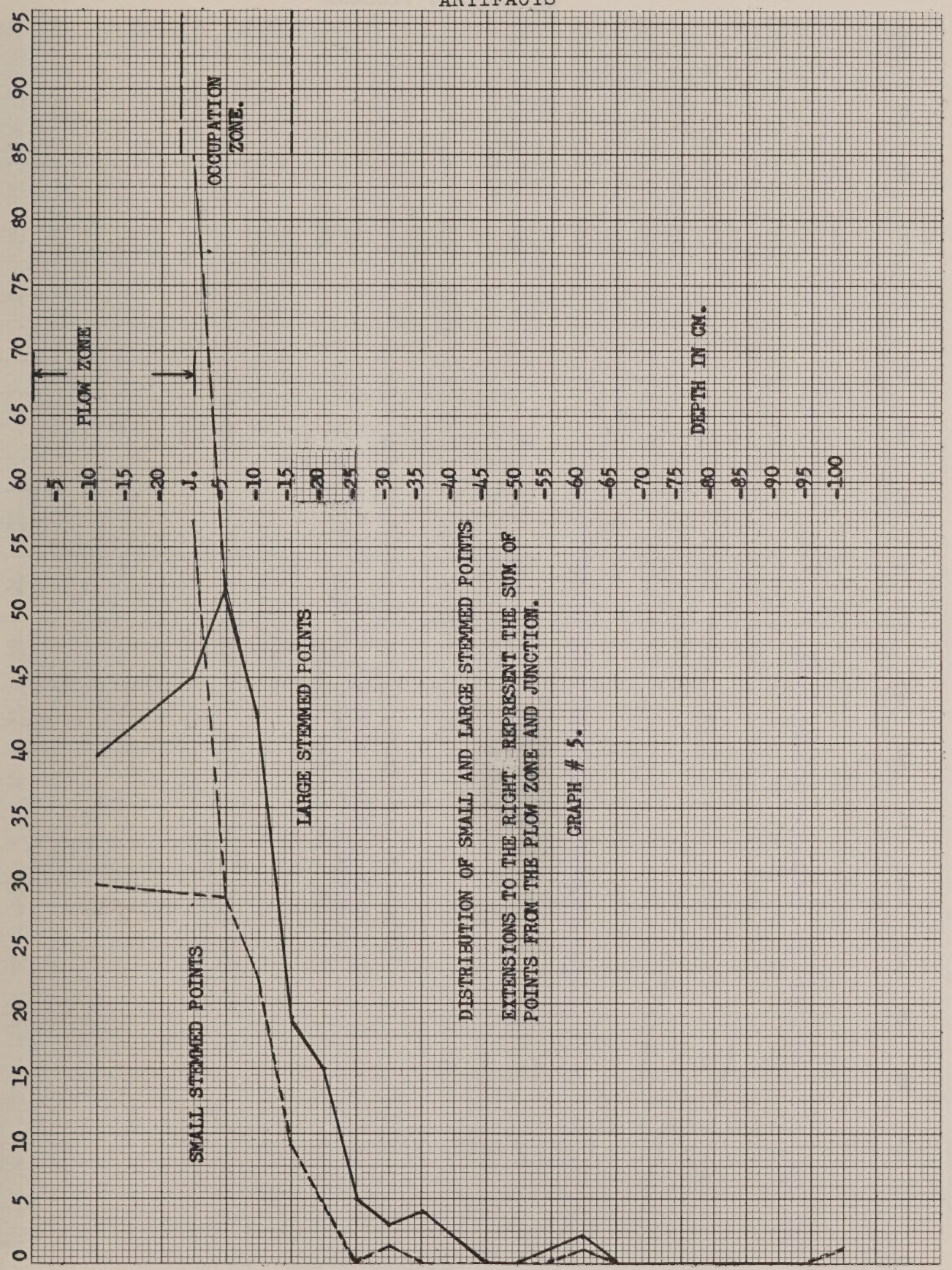
TOTAL ARTIFACTS EXCLUSIVE OF FEATURES
LOAM AND JUNCTION COMBINED

GRAPH # 2.



DOTTED LINES REPRESENT THE SUM OF POINTS FROM THE LOAM AND COLLECTION.
GRAPH # 3.

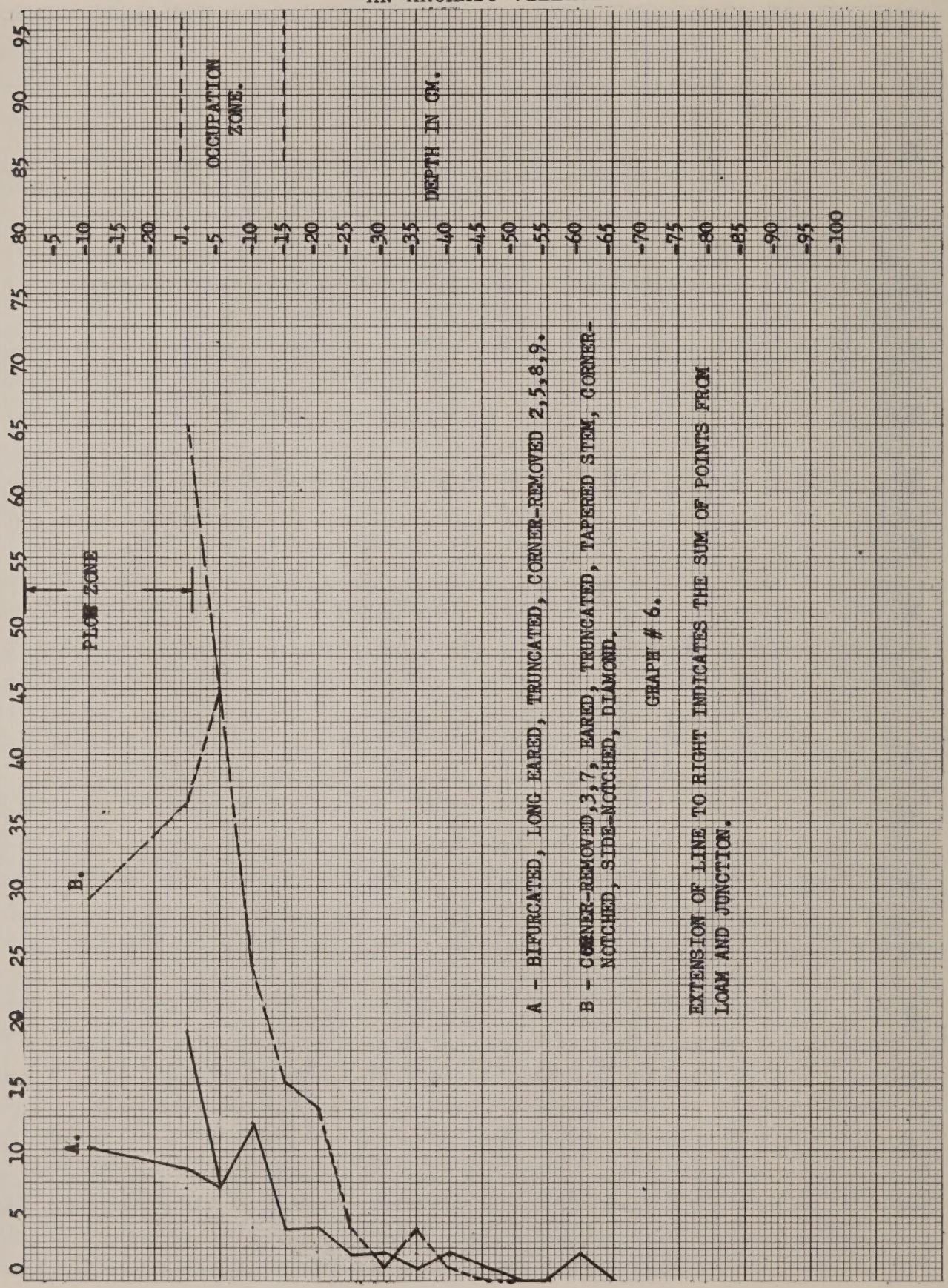

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190
-5 -10 -15 -20 J. -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85 -90 -95 -100
PLOW ZONE.
OCCUPATION ZONE.
TOTAL PROJECTILE POINTS
DOTTED LINE REPRESENTS
POINTS FROM PLOW ZONE
PLUS POINTS FROM JUNCTION.
GRAPH # 4.
DEPTH IN CM.

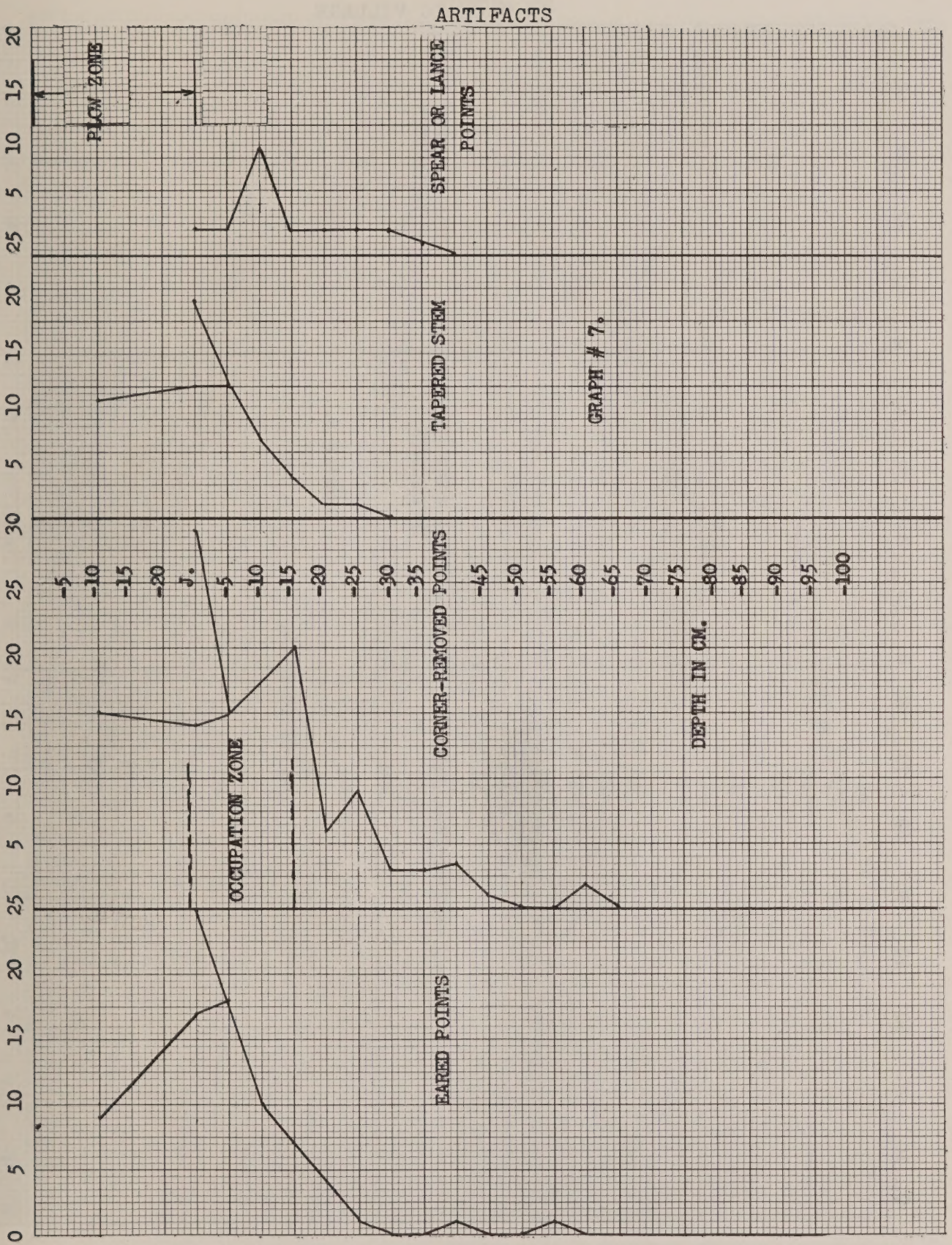


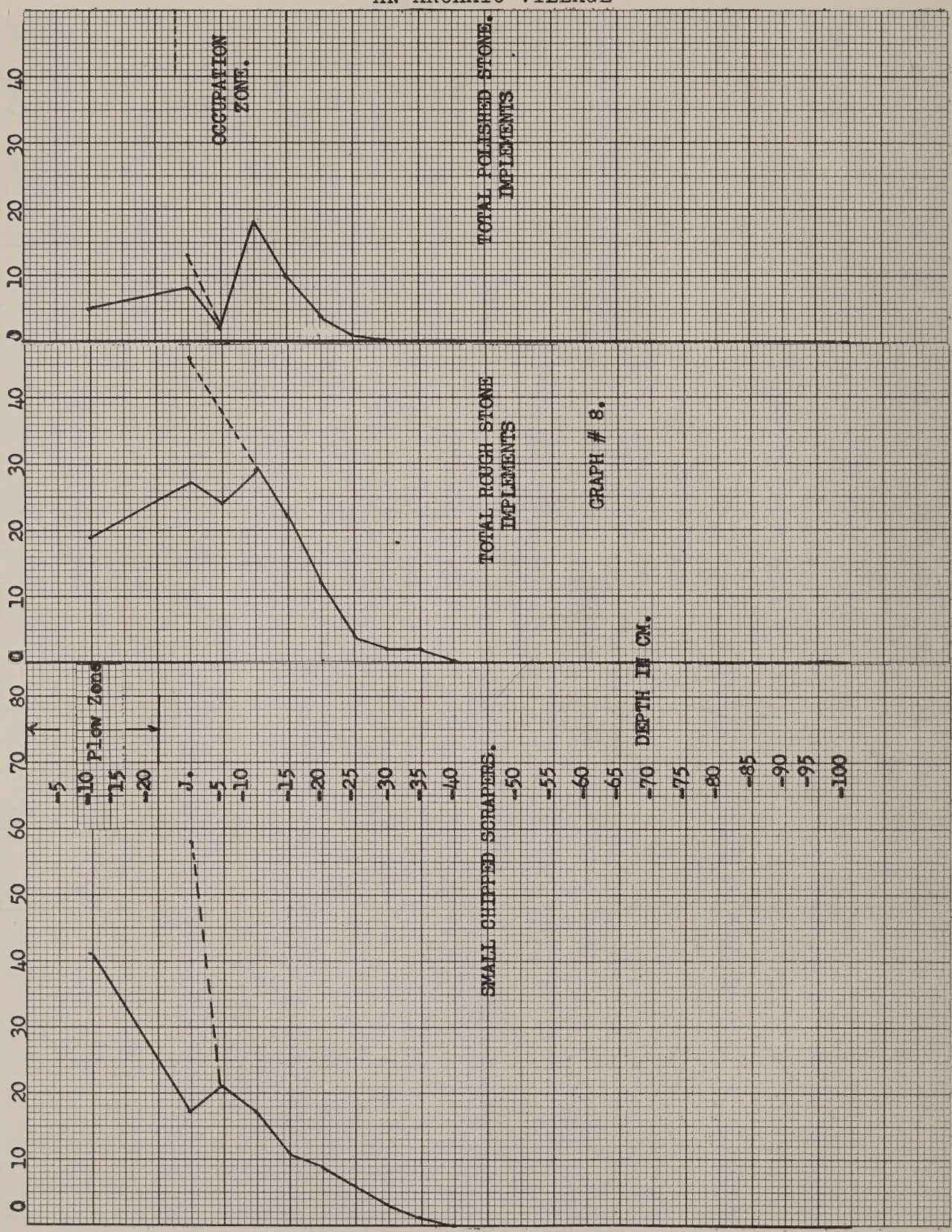
DISTRIBUTION OF SMALL AND LARGE STEMMED POINTS

EXTENSIONS TO THE RIGHT REPRESENT THE SUM OF POINTS FROM THE PLOW ZONE AND JUNCTION.

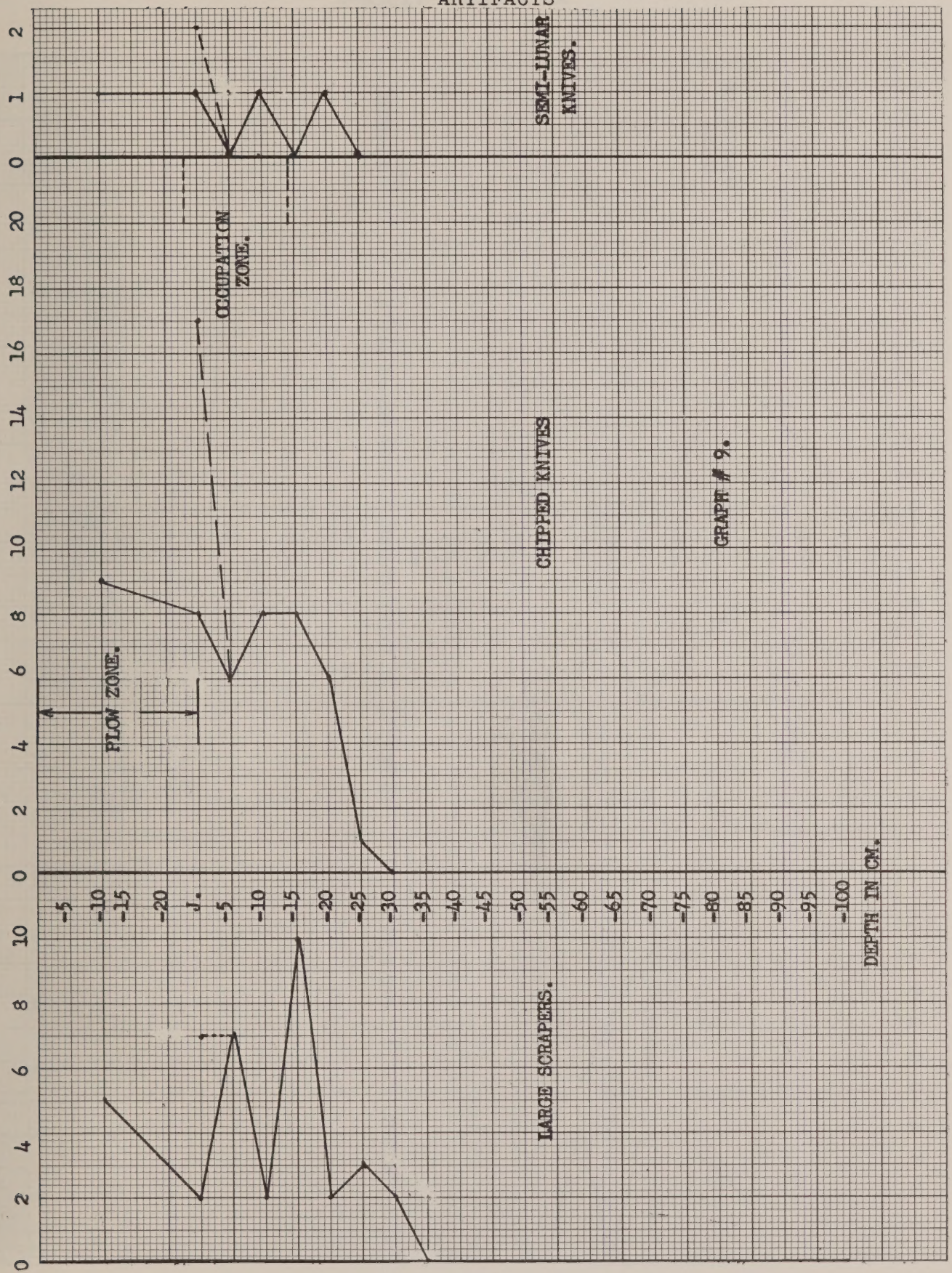
GRAPH # 5.

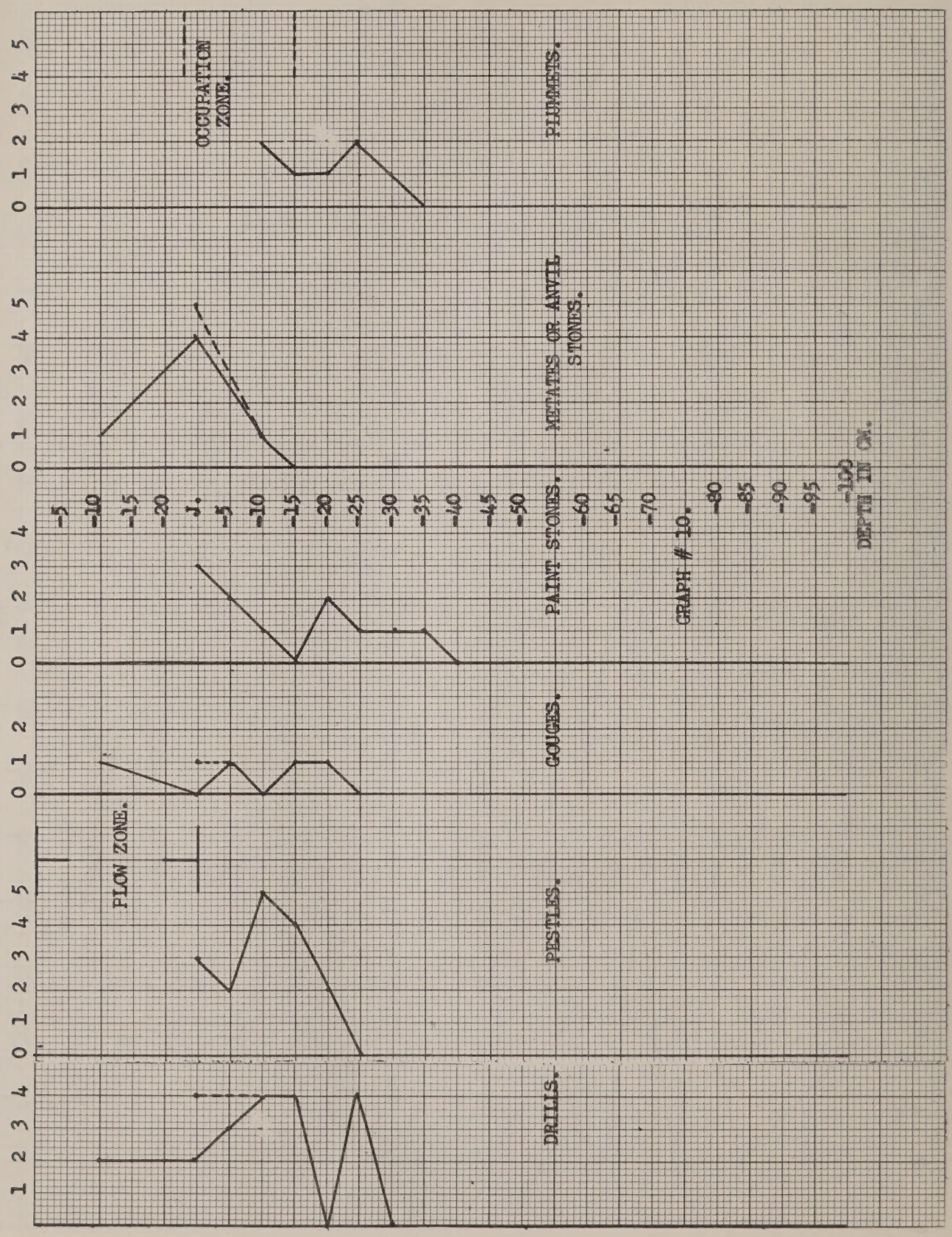

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95
-5 -10 -15 -20 J. -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85 -90 -95 -100
OCCUPATION ZONE.
DEPTH IN CM.
PLOW ZONE
B.
A.
A - BIFURCATED, LONG EARED, TRUNCATED, CORNER-REMOVED 2,5,8,9.
B - CORNER-REMOVED,3,7, EARED, TRUNCATED, TAPERED STEM, CORNER-NOTCHED, SIDE-NOTCHED, DIAMOND.
GRAPH # 6.
EXTENSION OF LINE TO RIGHT INDICATES THE SUM OF POINTS FROM LOAM AND JUNCTION.

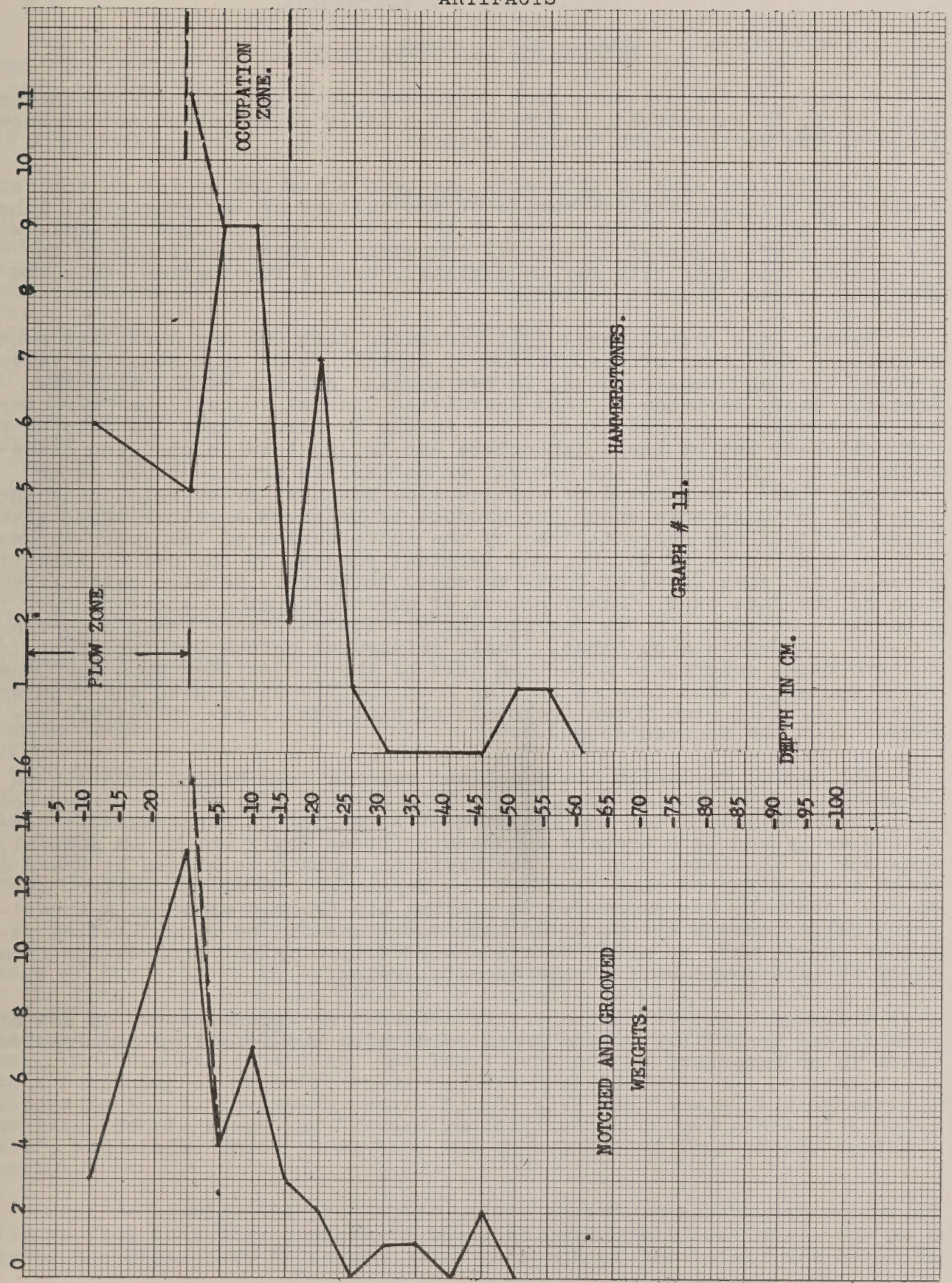

ARTIFACTS
PLOW ZONE
SPEAR OR LANCE POINTS
TAPERED STEM
CORNER-REMOVED POINTS
EARED POINTS
OCCUPATION ZONE
DEPTH IN CM.
GRAPH # 7.


OCCUPATION ZONE.
TOTAL POLISHED STONE IMPLEMENTS
TOTAL ROUGH STONE IMPLEMENTS
SMALL CHIPPED SCRAPERS.
Plow Zone
DEPTH IN CM.
0 10 20 30 40 50 60 70 80
-5 -10 -15 -20 J. -5 -10 -15 -20 -25 -30 -35 -40 -50 -55 -60 -65 -70 -75 -80 -85 -90 -95 -100

GRAPH # 8.


SEMI-LUNAR KNIVES.
OCCUPATION ZONE.
CHIPPED KNIVES
GRAPH # 9.
FLOW ZONE.
LARGE SCRAPERS.
DEPTH IN CM.


OCCUPATION ZONE.
PLUMMETS.
METATES OR ANVIL STONES.
PAINT STONES.
GOUGES.
PESTLES.
DRILLS.
PLOW ZONE.
GRAPH # 10.
DEPTH IN CM.
-5 -10 -15 -20 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -60 -65 -70 -80 -85 -90 -95 -100
0 1 2 3 4 5


OCCUPATION ZONE.
PLOW ZONE
HAMMERSTONES.
GRAPH # 11.
DEPTH IN CM.
NOTCHED AND GROOVED WEIGHTS.
0 2 4 6 8 10 12 14 16 1 2 3 5 6 7 8 9 10 11
-5 -10 -15 -20 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85 -90 -95 -100

DISCUSSION AND COMPARISONS

A study of the evidence from Wapanucket #6 suggests certain conclusions which, if acceptable, represent a notable contribution to our knowledge of the Northeastern Coastal Archaic.

A sufficient area of this site has been excavated to insure the collection of a representative sample of the culture of the aboriginal inhabitants of the site. A comparison of the lithic content of the sample with the trait list suggested by several competent authorities leads to the hypothesis that this site may be assigned, upon a typological basis, to the Late Coastal Archaic Period.

Byers, in a recent paper (31) concludes that "we may postulate a Late Archaic on the basis of association of certain forms with steatite vessels, grooved axes and bannerstones, in New England and the Middle Atlantic States. Early horizons of this postulated Coastal Archaic are characterized by choppers; grooved axes, which in the earliest forms are chipped but not polished; and by large lanceolate and trianguloid points with bases modified for hafting by the removal of corners to produce tapering or straight stems, by removal of shallow side notches, or by retouching the sides of the base only enough to produce barbs above a rather broad stem. Later horizons are characterized by the introduction of the spear-thrower with several forms of weight, and terminal phases, by the use of steatite vessels, and some forms of cord-impressed pottery". He also calls attention to the fact that, "Small points of quartz and other stones appear in preceramic horizons in New England and survive well into ceramic horizons -------", and points out that, "small triangular points with straight to concave bases constitute more than half of the projectiles from the Donavan site, while this form is lacking from the Brewerton site and Frontenac Island. By this same token fragments of nine semi-lunar knives are reported from the Donavan site ----".

William S. Fowler in his excellent reports from Ragged Mountain in Connecticut, (32) Potter Pond, (33), Twin Rivers, (34) and the Green Point (35) in Rhode Island and the Nunkatusset site (36) in Massachusetts describes early and late archaic components (Stone Bowl) which, in general, equate with the concept of the Northeastern Archaic as stated by Byers and which are similar to that found at the Wapanucket #6 site. Fowler, by careful control, has succeeded in placing his archaic components stratigraphically beneath the Woodland manifestations at the several sites reported and is able to point to evidences of typological progression from early to late components of the archaic period.

Although a number of the traits recorded at Wapanucket #6 do not appear in the trait list of the Green Point site the following comparative table is of interest:

DISCUSSION AND COMPARISONS

	GREEN POINT (EARLY)	WAPANUCKET #6
LONG EARED POINT	2	7
CORNER-REMOVED #5	1	17
ULU (Ground)	1	8
ULU (Chipped)	1	A (absent)

	GREEN POINT (LATE)	
SMALL TRIANGULAR	25	239
SMALL STEMMED	42	166
CORNER-REMOVED #3	24	38
CORNER-REMOVED #7	10	18
LEAF	3	A
TAPERED STEM	9	46
EARED	52	78
END AND CORNER PICKS	3	A
PIPE REAMER	1	A
GROOVED WEIGHT	1	7
PLUMMET	1	5
PERFORATED STONE	1	2
DRILLS	10	17
GROOVED GOUGE	1	A
PLAIN GOUGE	1	12
PESTLE	1	14
GORGET	2	A
PRONGED CLUB	2	A
STEMLESS AND STEMMED KNIVES	13	57
SMALL SCRAPERS	13	145
WOODWORKING SCRAPER	2	?
WOODWORKING NOTCHER	2	?
STRIKE-A-LIGHT	9	?
HAMMERSTONES	P (present)	41
ANVIL	P	7
PITTED STONES	P	A
TURTLE BACK	P	P
BONE FLAKER	P	A
RED OCHRE	P	P
GRAPHITE	P	P
STEATITE BOWL FRAGMENTS	P	9

In his "Culture Periods in Eastern United States Archaeology", James B. Griffin (37) has given us an excellent summation of the present knowledge of the archaic in the area under consideration. He calls attention to the transition from the flaking or chipping of certain forms to grinding and polishing techniques and mentions as diagnostic of the later archaic such forms as the full-grooved axe, bannerstone, plummet, and stone bowl. Griffin believes that, "At least part of the introduction of this stone polishing or grinding seems to have appeared with the Laurentian culture in the Northeastern area---". He also mentions as a diagnostic of the late archaic stage the "Extensive utilization of red ochre with burials", and states that, "Cremation was an emphasized form of the burial complex."

When we examine the projectile points recovered at the Wapanucket #6 site we find that they conform to these archaic specifications. The majority of the Wapanucket #6 points, more than 64% of the total, are based up-

on trianguloid or lanceolate forms in which the bases have been modified by the removal of corners or by retouching the sides of the base only enough to produce barbs above a rather broad stem. As at the Donavan site a respectable number of small triangular points (about 36% of the total) with concave bases appear. It seems evident that these triangular forms are not a demonstration of cultural change through time at the Wapanucket site but appear in significant numbers in all of the arbitrary levels into which the material was grouped. Except for a single instance, stemmed points outnumbered unmodified triangular forms at every level.

	STEMMED FORMS	TRIANGULAR FORMS
LOAM	57.9%	42.1%
JUNCTION	55.7%	44.3%
0-5 CM.	72.1%	27.9%
5-10 CM.	71.9%	28.1%
10-15 CM.	66.0%	34.0%
15-20 CM.	61.3%	38.7%
20-25 CM.	45.5%	54.5%
25-30 CM.	51.0%	49.0%
30-35 CM.	75.0%	25.0%
35-40 CM.	51.0%	49.0%

Additional forms mentioned by Byers, Griffin and Fowler as diagnostic of the late phase of the northeastern coastal archaic and which are present at Wapanucket #6 are: two forms of the bannerstone or spear-thrower weight, bipenate and oval, plummets, cylindrical pestles as well as mortars and muller stones, grooved axes, short, broad gouges, and semi-lunar knives of both the comb-backed and polished all-over variety. Sherds of steatite vessels are present but there is no trace of clay pottery in this comparatively large sample. Pipes are absent from the Wapanucket trait list.

The hypothesis that the Wapanucket #6 Site should be assigned to the Late Coastal Archaic upon the basis of typology appears to be sufficiently demonstrated.

A second hypothesis that the Wapanucket #6 Site is a "closed site" (a single cultural component is present) is also supported by the typology and by the absence of those forms commonly ascribed to the Woodland Period. The vertical distribution of artifacts as demonstrated by the included graphs also presents an argument for the presence of a single component. The graphs, which have been adjusted to compensate for recent disturbances in the overburden, present a smooth declining curve from the occupied zone to a point beyond which figures become insigificant and are typical of a "closed site". The position of such diagnostic traits as the semi-lunar knife throughout the entire vertical range of artifacts seems to indicate that no marked change through time occurred at the site.

CONCLUSIONS

In the preceeding sections I have described the geographic area in which the Wapanucket sites are located; presented, in brief form, the history of the immediate vicinity; explained the techniques of excavation persued by the Chapter, and described in detail the artifacts and data recovered at Wapanucket #6. I now propose to summarize this evidence and to draw certain conclusions based upon our observations.

Our fundamental hypothesis, that the culture of the aboriginal inhabitants of Wapanucket #6 was that of a people of the late phase of the Archaic period, rests upon the basis of artifact typology supported by a comparison with the published opinions of competent authorities. The radio-carbon dates obtained and published in previous sections of this report serve to substantiate this concept and to indicate the chronological position of this period in southeastern Massachusetts.

The secondary hypothesis, that Wapanucket #6 is a "closed site" or that the sum total of the recoveries represent a single cultural component, seem to be logical in view of the vertical distribution as demonstrated and the position throughout the entire vertical range of certain diagnostic elements.

The conclusions which follow are based upon an acceptance of the preceeding hypothesis.

From our previous knowledge of the culture of the Archaic people of the Northeast we had assumed that they lived together in small family bands of perhaps twenty to thirty souls in well defined and fairly extensive hunting territories (38). We believed that the type of economy in which they lived, that of a hunting-fishing-food gathering people, imposed many restrictions upon their development. In order to maintain a satisfactory subsistance level, frequent migrations were necessary, and it seems probable that these migrations were adjusted to the seasonal food variations of the environment. Such a mode of life would have discouraged the erection of permanent villages so that we expected to find little evidence of structures in our excavation of sites from this period. As a further consequence of their pre-occupation with food-getting we had assumed that their social, political, and religious complexes were meager and that little evidence concerning them would be extant. Much of the information acquired at Wapanucket #6 is contrary to these expectations.

We must conclude that the archaic people whose village was located at Wapanucket #6 lived a fairly settled sort of existence. The location seems to have been chosen for convenience rather than strategic position. Although the difficulties of a land approach to the site have been pointed out in a previous section, the lodges are nevertheless in an exposed position upon the highest elevation to be found along the northern shore of the lake. They are not protected by any sort of stockade. The very size of the lodges, which average thirty-five feet in diameter, and the type of construction, create an impression of permanence and a sense of security from molestation. It has been pointed out that the location is well back from the shore of the lake and that this may have been dictated by a desire to conceal the presence of the village. However, the existence of such a sizable encampment would certainly have been revealed by the smoke

from its cooking fires, by paths from the beach to the bluff above, and by many other indications discernable to those accustomed to life in the wilderness. It seems much more logical to assume that the selection of an area slightly removed from the lake shore was influenced by the cold winds which sweep across the open water during the winter and early spring.

A number of inferences may be drawn from the number, size, and arrangement of the structures within this ancient village. Because of its unusual size, nearly sixty-six feet in diameter, and its peculiar internal arrangement, Lodge #4 is thought to have been used for ceremonial purposes. The remaining six structures, which range from thirty to forty-five feet in diameter, are probably dwellings.

Attention has been drawn to the unique floor plan of these structures which, as far as we have been able to determine, has never before been reported from this area. The walls of the structures were composed of double lines of posts which had been driven into the ground to a depth of about one foot. This may indicate a double wall except for that portion which formed the protective doorway which is indicated by a line of single posts. Possibly the space between these walls was stuffed with grass to provide insulation. Another possible explanation of this construction is revealed by our attempt to reconstruct the framework of Lodge #5. Except in the instance of Lodge #4 there were no indications of internal roof supports and the side thrust of roof rafters had to be absorbed entirely by the walls of the structure. We found that the double posts, further strengthened by horizontal and diagonal cross members, were capable of resisting the considerable side thrust exerted by the long roof rafters.

Reference to the village plan (Map #4) will call attention to the orientation of the entrances of the dwelling lodges in a general northeasterly direction. This orientation would seem odd were it not for the fact that this is opposite to the direction of the prevailing winds which, especially during the colder months, is from the southwest across the lake. The arrangement of lodges within the village does not seem to have special significance except that it indicates a number of dwellings clustered about a larger structure assumed to be of ceremonial significance.

This ceremonial structure, if this be its function, deserves special consideration. The very size and permanence of the structure argues for a complexity in the non-material culture of the people who built it. This is contrary to our former assumptions. In this structure the protected entrance way is emphasized by extending it more than half-way about the circumference, by the use of double post construction throughout, and by its orientation toward the southwest. Internally two half circles of double post molds arranged concentrically were found. One might reason that the considerable roof surface of this large building required this additional support. However, it is difficult to explain why the inner circles are incomplete, as a roof, if indeed such were present, would require support throughout. This observation may contain the key to the answer in that it is not necessary to assume that this ceremonial structure was completely roofed, possibly a half roof protected the ceremonial area only. Between the posts which composed the innermost circle were five pits or hearths which, because of their regular spacing, suggest that they played a part in whatever ceremonies may have taken place within the enclosure. It is of interest to note the similarity between this arrangement within the larger lodge and the five pits which were found in a semicircle about the northeastern periphery of Crematory #5.

CONCLUSIONS

The discovery of this fair sized village which can be assigned with some degree of confidence to the late Archaic, provides support for the statement by Ritchie (39) in which he says, "After about 3000 B.C. by extrapolation from radiocarbon dated central and eastern New York sites, and for more than 2000 years, the Coastal region shared with inland New York and adjacent areas, a sparse and scattered population of hunters, fishermen, and collectors of wild vegetal foods, in an Archaic stage of culture. These people seem to have had a central-based community pattern, (40) that is, during most of the year they moved from place to place, living for varying periods of time on local food resources, and spent the remaining time at a semi-permanent base camp to which they brought preservable wild foods, such as acorns and smoked or dried fish."

Among those who excavated at Wapanucket #6 are a number who had considerable experience in surface hunting in the area. It is their observation that within a fifty-mile radius of Wapanucket there are a large number of small sites from which artifacts typologically similar to those described in this report have been found. Reference to Map #1 and #2 will indicate that the area about Assawompsett Lake is an ideal one for the type of existence described above. Many small streams lead in all directions and provide easy access to the heavily forested hunting areas of the Taunton River valley. Tidal rivers flow in and out of the central group of lakes making the sea, with its abundant supply of shell fish, within easy reach. Here, in the spring of the year, the annual runs of salmon, trout and the lowly alewife (which last still invade the rivers in quantity) provided an abundant feast after the lean winter, and would furnish an easily preservable store for future needs. Shore birds and small game in the adjacent swamps were not to be overlooked, and in the immediate uplands, even to this day, are an abundance of berry producing shrubs.

After a winter spent ranging in small family groups about the hunting territory to the north and west, the band would turn, quite naturally, to this favored site on the shore of the great lake. Here they would find quantities of food readily available and here they would perform the ceremonies demanded by their culture. Those who had departed this life during the long winter would be brought here for burial. As the season advanced the urge to enjoy the cool breezes of the sea shore and to partake of the succulent shellfish to be found there could be satisfied by a short canoe trip by way of either the Nemasket and the Taunton River to Narragansett Bay or down the Mattapoisett River to Buzzards Bay. Probably they would again gather at the lake in the fall of the year to pick up the stores of preserved fish before dispersing for the long winter in the hunting territory. A possible clue to the size of this band lies in the size of their lodges and in the spaciousness of the ceremonial lodge. It would seem that a minimum of twenty persons might find accomodation in these large dwellings. If so we may assume that this band was composed of at least six family groups, perhaps totalling more than a hundred individuals.

There is little evidence in the refuse or in the pits at Wapanucket #6 to enable us to substantiate a guess at the character of the food supply. A thin scattering of the bones of small mammals and birds, and an occasional fragment of fish bone cccurred. All were broken into pieces so small that identification of specie was a practical impossibility. The complete absence of bone tools which presumably should have formed a significant portion of their tool category is probably due to environmental conditions. Shell is also absent indicating that this type of food was not used in quantity at the site. However, the location of the village and

the presence of such artifacts as notched and grooved weights and plummets suggests a primary dependence upon fishing supplemented by the hunting of small game. The evidence of stone grinding devices attests to the preparation of wild vegetal foods, and steatite sherds indicate that stone bowls were in use. However, the large quantity of burned and broken fragments of stone also suggests stone-boiling in vessels of more perishable material. We were fortunate to recover in recognizable condition the wooden dish illustrated in Fig. 15 supporting the often expressed thought that the archaic people made considerable use of that material.

The ample supply of stone projectile points seems to indicate that hunting played no small part in the economy. From the size and weight of many of these projectile points and the presence of two forms of the spear thrower weight we may infer that the spear or lance, projected by means of a throwing stick, was at least known to these people. The many small stemmed and triangular projectile points cannot, however, be ignored. It is altogether possible that the bow and arrow came into use by late archaic times and shared honors with the older, more cumbersome weapon. That the mere presence of small, light weight points is evidence per se of the bow and arrow is questionable. One may argue that the arrow or a featherless prototype of the arrow may have preceeded the bow. A progression from the single component spear, a heavy awkward weapon at best, to a two component spear, in which a short shaft is perforated longitudinally to receive a light foreshaft or featherless arrow, is logical. The hunter in his wanderings would then be encumbered with but a single shaft and throwing stick, and might conveniently carry a number of the lighter foreshafts armed with a small stone point.

A number of the material traits from the Wapanucket #6 site indicate a fairly complex mortuary cult. According to Ritchie (41), "------it is possible to show that a rudimentary expression of certain of the basic motifs underlying the northern burial cult (Woodland) are traceable back into partially radio-carbon dated cultures of the Archaic horizon in the eastern United States." Griffin (42) has also referred to the type of burial to be expected in the Late Archaic culture of the area and furnishes a possible clue to the physical type of the Wapanucket people in the following quotation, "-----and this culture (Laurentian) is also said to be marked by the introduction of a short, stocky, brachycephalic people who practised extended burial and cremation, along with extensive utilization of red ochre with burials. Cremation was an emphasized form of the burial complex."

The mortuary complex at Wapanucket #6 conforms in many respects to that found by Ritchie at a number of sites in New York and to a lesser degree with sites in more southerly areas. The principal features of this complex are the cremation of denuded skeletons at prepared crematory pits, the subsequent burial of the incinerated remains in pits near the village, and the inclusion, in some instance, of red ochre with grave goods. At Crematory #3, in addition to bits of calcined human bone, a number of stone implements were found intermixed with the charcoal. These artifacts, shown in Fig. 17, were for the most part unbroken, but show the effect of the heat to which they were subjected. Here is an indication that the mortuary offerings were sometimes burned with the skeletons and we may infer that offerings of a more perishable nature may have been present but were completely consumed.

CONCLUSIONS

The presence of five small hearths or pits arranged in a semi-circle about the northeastern periphery of Crematory #1 and a similar arrangement of five hearths or pits between the post of the innermost semi-circle in Lodge #4, the sacrifice of particularly well made artifacts of stone, and the utilization of red ochre in the secondary burials, is certainly provocative of thought. The size of the burial pits in relation to the small amount of incinerated bone they contain is somewhat surprising. It is worthy of note that in all instances the deposit of incinerated bone had been placed in the extreme southwestern portion of the pit.

The length of time during which the Wapanucket #6 site was occupied is somewhat difficult to deduce from the evidence recovered. The number of burials found is small, the thinness of the refuse deposit, and the meager content of the refuse pits all suggest an occupation of short duration. However, if the occupation was seasonable these may not be a valid indication of time. Possibly there are many additional burials in the unexcavated areas. The apparent homogenity of the material culture and the vertical distribution of certain diagnostic elements however, are an indication that little cultural change took place during the occupation and is an additional argument for a relatively short period of occupation.

In summary, the evidence recovered at Wapanucket #6 provides a better understanding of the late Archaic culture pattern in the Northeast. Johnson's expectation (43) that a village of this period would someday be discovered is fulfilled.

From our work at Wapanucket #6 we have gained the impression of a people on the threshold of significant advance. Here was the village of a people satisfied with their lot and living a semi-sedentary, peaceful sort of existence. Their village was open and apparently undefended. They did not fear molestation from others of their kind. The ceremonial nature of the larger of the seven structures and the traits of the mortuary complex are indicative of considerable development in the non-material elements of their culture pattern.

It is our hope that continued excavation here on the northern shore of Assawompsett Lake may reveal still more concerning these ancient people.

Attleboro, Massachusetts

November, 1959

BIBLIOGRAPHY

1 Robbins, Maurice
1956 The Use of Red Ochre in Historic Times. Bulletin of the Massachusetts Archaeological Society, Vol. XVII, #2, p 18, Attleboro, Massachusetts

2 Johnson, Frederick
1949 The Boylston Street Fishweir II. Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 4, #1, p 124, Andover, Massachusetts

3 Weston, Thomas
1906 History of the Town of Middleboro, Massachusetts p. XVII. The Riverside Press, Cambridge, Massachusetts

4 Ibid p. 1

5 Ibid p. 2

6 Ibid p. 2

7 Robbins, Maurice
1950 Historical Approach to Titicut. Bulletin of the Massachusetts Archaeological Society, Vol. XI, #3, p 48, Attleboro, Massachusetts

8 Gookin, Warner F.
1958 Massasoit's Domain: Is Wampanoag the Correct Designation. Bulletin of the Massachusetts Archaeological Society, Vol. XX, #1, p 12, Attleboro, Massachusetts

9 Robbins, Maurice
1950 Historical Approach to Titicut. Bulletin of the Massachusetts Archaeological Society, Vol. XI, #3, p 48, Attleboro, Massachusetts

10 Weston, Thomas
1906 History of the Town of Middleboro, Massachusetts p 10. The Riverside Press, Cambridge, Massachusetts

11 Cheever, George B.
1894 The Journal of the Pilgrims at Plymouth in New England as reprinted from the original with historical and local illustrations of Providenses, Principles and Persons. Sec. Ed. pp 67-74, New York and London.

12 Weston, Thomas
1906 History of the Town of Middleboro, Massachusetts p 22. The Riverside Press, Cambridge, Massachusetts

13 Ibid p. 24-26

14 Ibid p. 26

15 Ibid p. 26

16 Ibid pp. 26-27

17 Ibid p. 27

18 Robbins, Maurice
1950 Historical Approach to Titicut. Bulletin of the Massachusetts Archaeological Society, Vol. XI, #3, p 59, Attleboro, Massachusetts

19 Plymouth Registry of Deeds, Book III, p 238.

20 Weston, Thomas
1906 History of the Town of Middleboro, Massachusetts, p 612. The Riverside Press, Cambridge, Massachusetts

21 Book of Indian Deeds, The Last Will and Testament of Pamantaquash alias The Pond Sachem, p 41, Plymouth, Massachusetts

22 Pierce E. W. and Mitchel, Zerviah G.
1890 Indian History, Biography and Geneaology, Privately Printed

23 Ibid p. 17

24 Ibid p. 27

25 Ibid p. 36

26 Lord, Arthur C. Jr.
1959 Glacial Water Levels in Southeastern Massachusetts, A Thesis submitted to the Faculty of Clarke University, Worcester, Massachusetts in partial fulfillment of the Requirements for the Degree of Master of Arts in the Department of Geography, pp 58-61. By permission of the author Chapter VI is quoted in its entirety.

27 Johnson, Frederick
1947 Grassy Island, Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 1, #2, pp 9-10, Andover, Massachusetts

28 Johnson, Frederick
1949 The Boylston Street Fishweir II. Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 4, #1, p 125, Andover, Massachusetts

29 American Journal of Science Radiocarbon Supplement, Vol 1, 1959. University of Michigan Radiocarbon Dates IV, p 184.

30 Fowler, William S.
1951 Ragged Mountain: Cultural Sequence in a Connecticut Quarry Shelter, Bulletin of the Archaeological Society of Connecticut, #25, pp 3-24, New Haven, Connecticut

31 Byers, Douglas S.
1959 The Eastern Archaic: Some Problems and Hypotheses, American Antiquity, Vol. XXIV, #3, Salt Lake City, Utah

32 Fowler, William S.
1951 Ragged Mountain: Cultural Sequence in a Connecticut Quarry Shelter, Bulletin of the Archaeological Society of Connecticut, #25, pp 3-24, New Haven, Connecticut

33 Fowler, William S. with Luther, Herbert A.
1949 Culture Sequence at the Potter Pond Site, Bulletin of the Massachusetts Archaeological Society, Vol. XI, #4, Attleboro, Massachusetts

34 Fowler, William S.
1953 Twin Rivers: Four Culture Sequence at a Rhode Island Site, Bulletin of the Massachusetts Archaeological Society, Vol. XIV, #1, Attleboro, Massachusetts

35 Fowler, William S.
1954 Rhode Island Prehistory at the Green Point Site, Bulletin of the Massachusetts Archaeological Society, Vol, XV, #4, Attleboro, Massachusetts

36 Engstrom, Roland E.
1952 A Preliminary Report on the Nunkatusset Site, West Bridgewater, Massachusetts Bulletin of the Massachusetts Archaeological Society, Vol. XIII, #1, p 5.

37 Griffin, James B.
1952 Archaeology of Eastern United States, Culture Periods in Eastern United States, pp 352-364, Chicago, Illinois

38 Ibid p. 354

39 Ritchie, William A.
1959 The Stony Brook Site and its Relation to Archaic and Transitional Cultures of Long Island, New York State Museum and Science Service, Bulletin #372, p 9, Albany, New York

40 Meggers, Betty J.
1955 Seminars in Archaeology: Ed. by Robert Wauchope, Memoirs of the Society for American Archaeology, #11, pp 131-157, Salt Lake City, Utah

41 Ritchie, William A.
1955 Recent Discoveries Suggesting An Early Woodland Burial Cult in the Northeast, New York State Museum and Science Service, Cir. #40, Albany, New York

42 Griffin, James B.
1952 Archaeology of Eastern United States, Culture Periods in Eastern United States, p 355, Chicago, Illinois

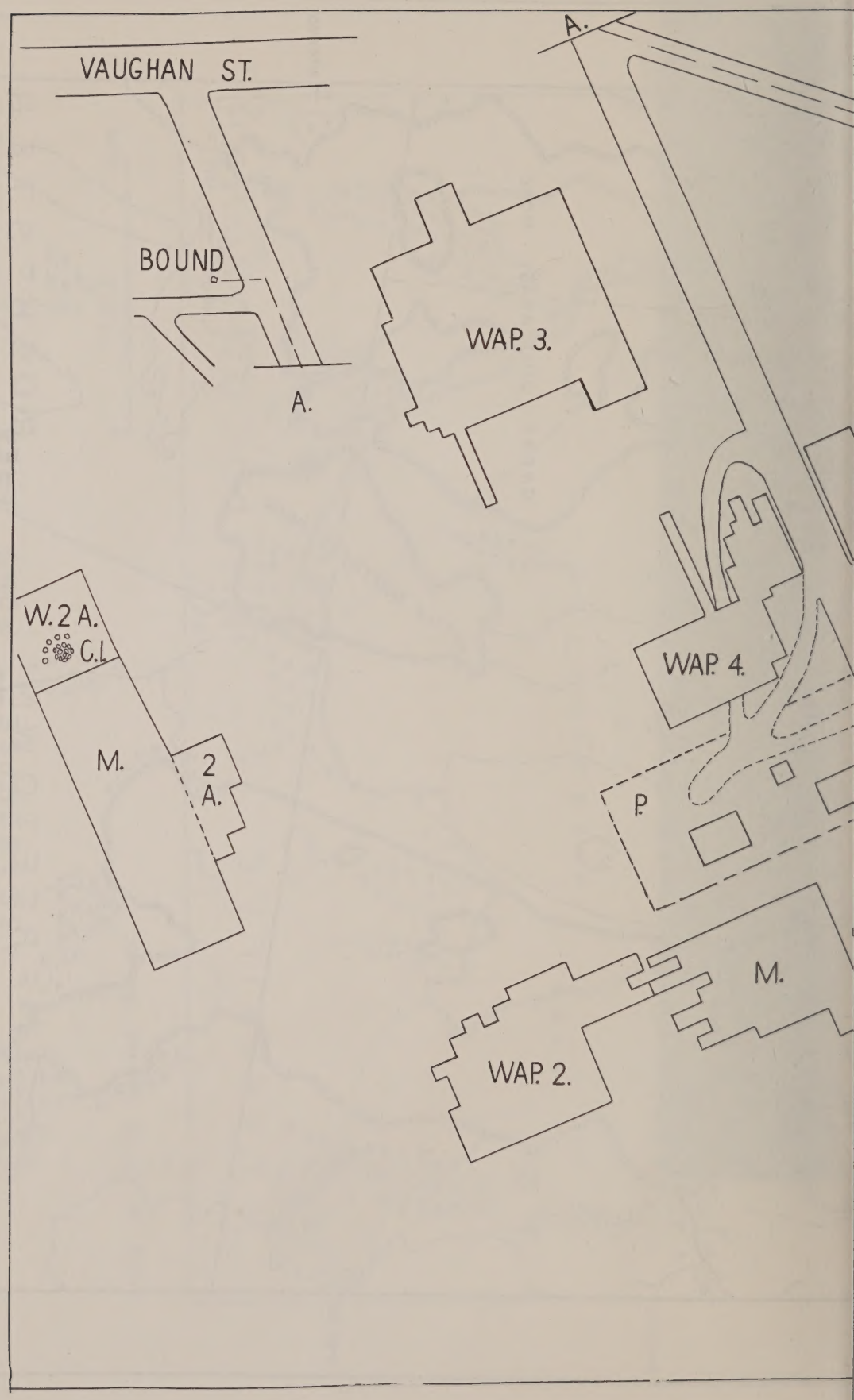
43 Johnson, Frederick
1949 The Boylston Street Fishweir II. Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 4, #1, p 124, Andover, Massachusetts

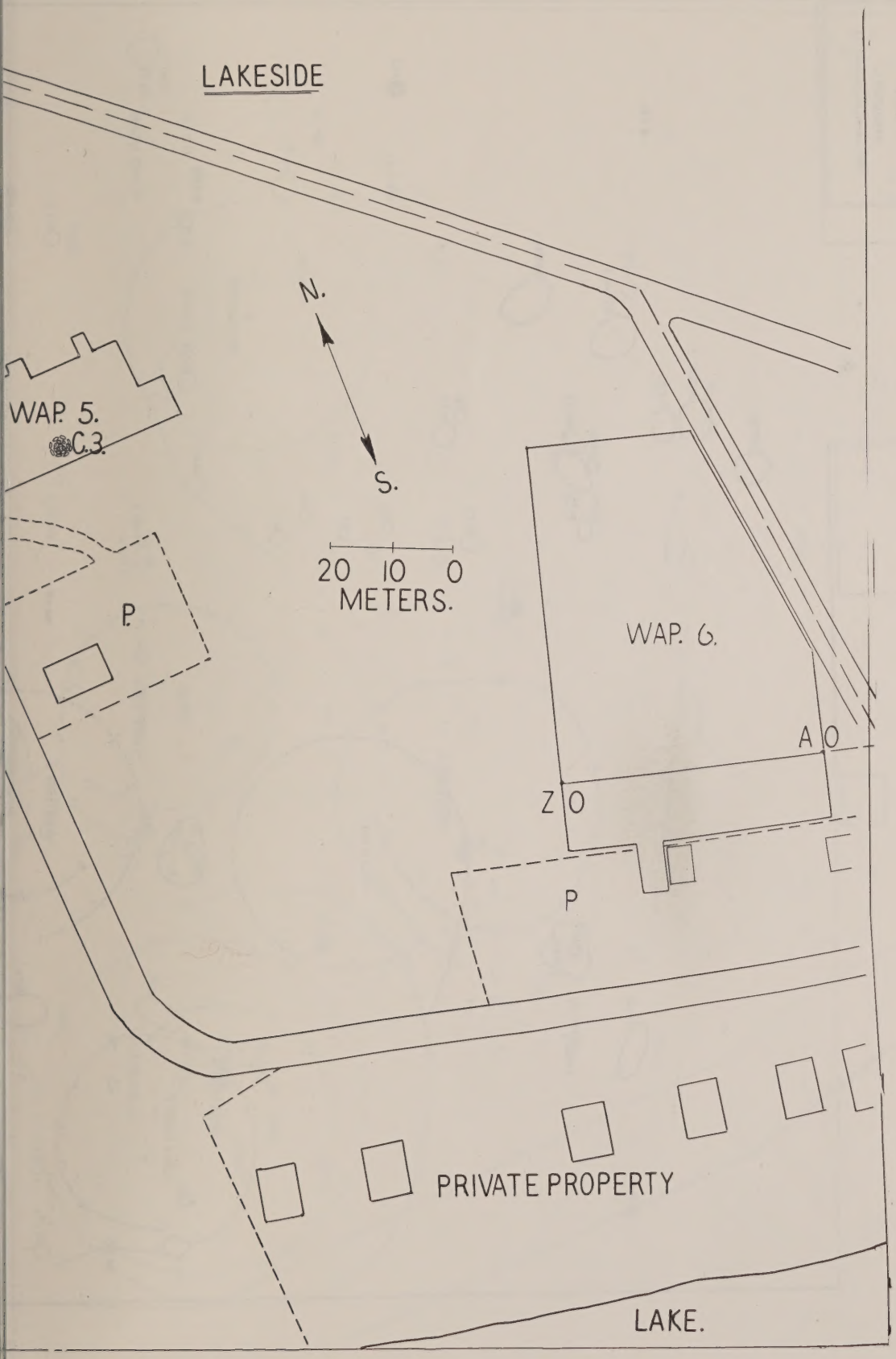
ILLUSTRATIONS

Map #1	The Assawompsett Area
Map #2	Vicinity of Assawompsett Lake
Map #3	Area Plan, North Shore of Assawompsett Lake
Map #4	Plan of the Wapanucket #6 Site
Fig. 1	Physical map of the Wapanucket Area
Fig. 2	Grid and Specimen Card
Fig. 3	Pits, 6,18, 19, 29, 48 and Hearth 39
Fig. 4	Hearths 7, 8, 9, 14, 24, 35, and Crematories 1 and 2
Fig. 5	Burials 1, 2, 3, 4
Fig. 6	Artifacts from Burials 2 and 3
Fig. 7	Silhouettes of Projectile Points
Fig. 8	Silhouettes of Drill and Knife Types
Fig. 9	Small Triangular Projectile Points
Fig. 10	Small Stemmed Projectile Points
Fig. 11	Various Types of Large Stemmed Projectile Points
Fig. 12	Corner-Removed Projectile Points
Fig. 13	Spear or Lance Points, Scrapers, Drills, and Knives
Fig. 14	Gouges, Adze Blades, Atl-Atl Weights, Plummets, Perforated Stone, Thunder-Bird, Fragments of Ground and Polished Stone
Fig. 15	Steatite Vessel Fragments, Grooved and Notched Weights, Wooden Dish, and Rough Tools
Fig. 16	Semi-lunar Knives
Fig. 17	Artifacts from Crematory #3
Fig. 18	Pestles, Muller, and Rough Tools

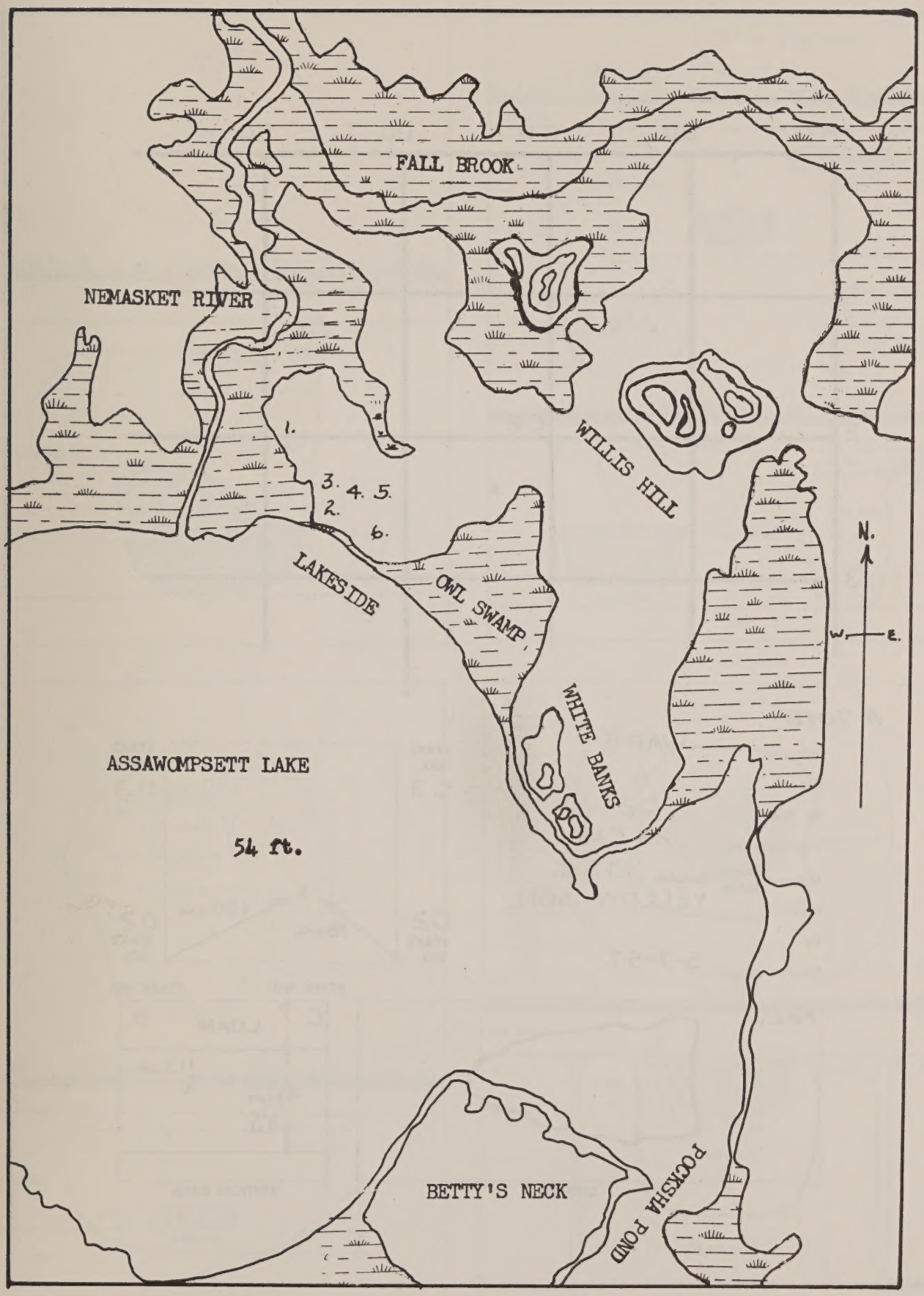
71°
N
0
1 Mi.
TAUNTON
MIDDLEBORO
ASSAWOMPSET
POND
DIGHTON
LONG
POND
QUITTACAS
SOMERSET
45'
TAUNTON
RIVER
FALL
RIVER
WATUPPA
POND
NEW BEDFORD
FAIRHAVEN
BUZZARDS
BAY
71°
MAP #1.

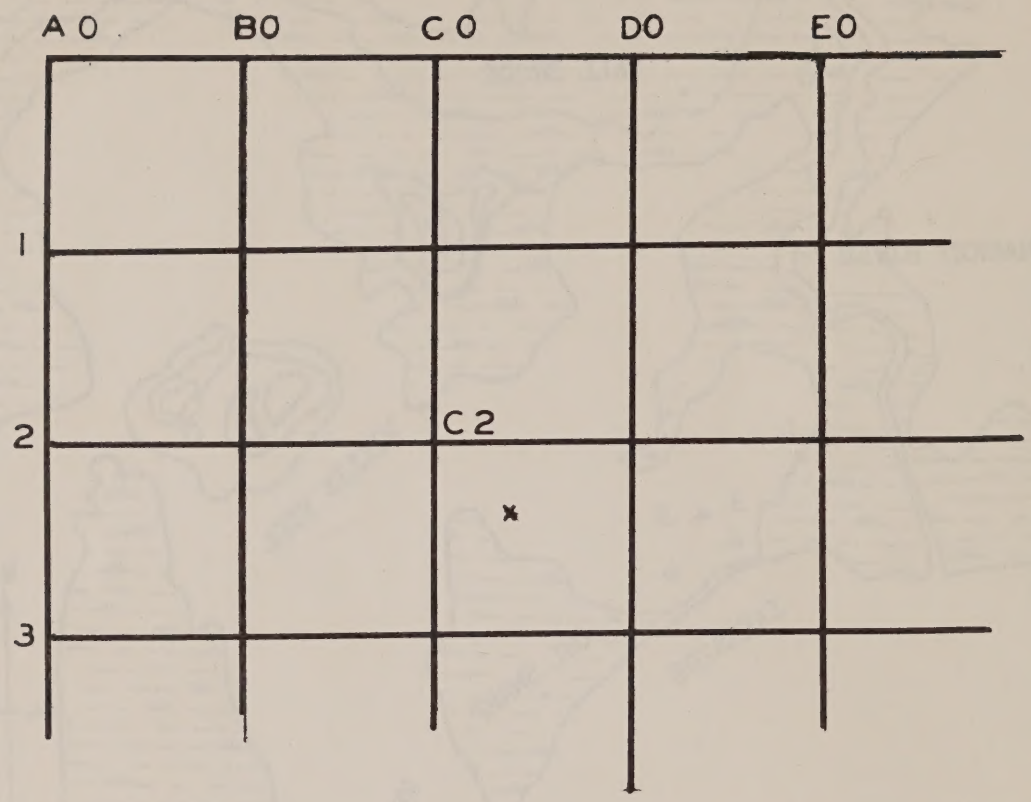
ASSAWOMPSET POND AREA
Based on U.S.G.S. Survey 1941 ed.
N.
SCALE
0
1mile
LAKEVILLE
MIDDLEBOROUGH
NEMASKET R.
WAP. 6.
LOON POND
ASSAWOMPSET POND
POCKSHA POND
CRANBERRY POND
CRANBERRY BOG
LONG POND
GREAT QUITTACAS POND
LITTLE QUITTACAS POND
FREETOWN
ROCHESTER
41°47'50"
41°47'30"
70°57'30"
70°55'
100
150
54


VAUGHAN ST.
A.
BOUND
A.
WAP. 3.
W. 2 A.
C.I.
M.
2
A.
WAP. 4.
P.
M.
WAP. 2.


LAKESIDE
N.
S.
WAP. 5.
C.3.
20 10 0
METERS.
P.
WAP. 6.
A O
Z O
P
PRIVATE PROPERTY
LAKE.

GARAGE
PIT 38
PIT 49
2 M.
•-POST MOLDS
H-HEARTH
WAPANUCKET 6.
MIDDLEBORO, MASSACHUSETTS.
MR.
BURIAL 1
BURIAL 2
PIT 26
H38
H34
PIT 41
BURIAL 3
PIT 11
PIT 19
PIT 22
PIT 23
H40
PIT 42
H37
PIT 44
BURIAL
H14
PIT 6
H8
PIT 5
H13
H33
H4
LODGE FLOOR 1
H5
H6
H7
PIT 14
H12
PIT 27
H17
PIT 3
H11
LODGE FLOOR 2
PIT 1
H1
PIT 2
H26
PM'S IN SAND
PIT 8
PIT 9
LODGE FLOOR 3
H9
PIT 21
PIT 4
PIT 10
PIT 20
PIT 40
PIT 80
H10
PIT 7
PIT 17
PIT 43
H10
PIT 13
H16
PIT 18
PIT 15
LODGE FLOOR
PIT 34
PIT 29
R-C SAMPLE
M 764
PIT 48
2M
PIT 25
H31
H30
PIT 24
PIT 35
H32
LODGE FLOOR 4
H18
H22
PIT 28
LODGE FLOOR 6
H19
H24
PIT 45
PIT 31
H28
H25
PIT 33
H35
PIT 50
LODGE FLOOR 7
H21
H20
PIT 46
H36
PIT 51
PIT 47
PIT 37
PIT 32
PIT 39
PIT 36
H23
H27
H37


FALL BROOK
NEMASKET RIVER
WILLIS HILL
1.
3. 4. 5.
2.
6.
LAKESIDE
OWL SWAMP
WHITE BANKS
N.
W. E.
ASSAWOMPSETT LAKE
54 ft.
BETTY'S NECK
POCKSHA POND



7016

Site WAP 6

Sec. A

Sq. No. C 2

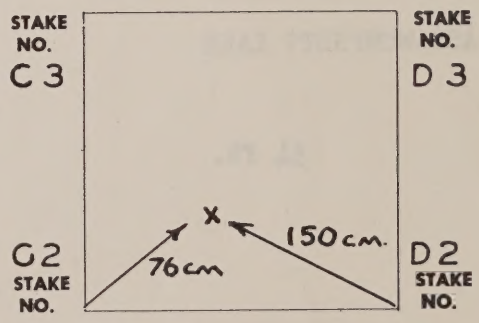
Depth of Loam 20 CM.

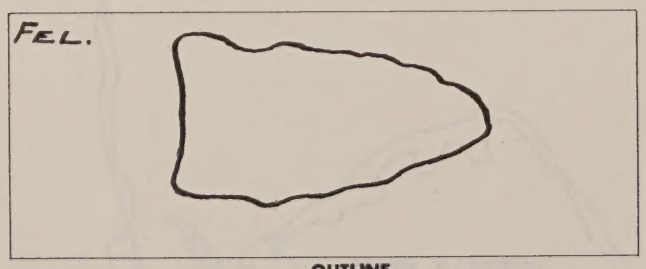
Distance above below Junction 13 CM.

Layer YELLOW SOIL

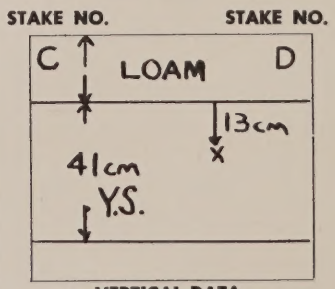
By

Date 5-7-57

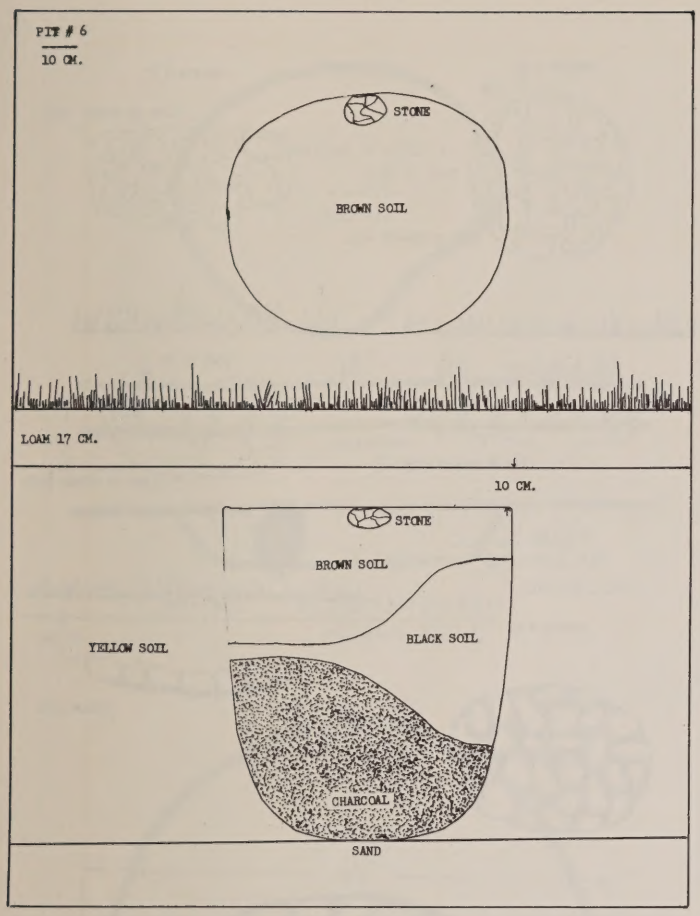


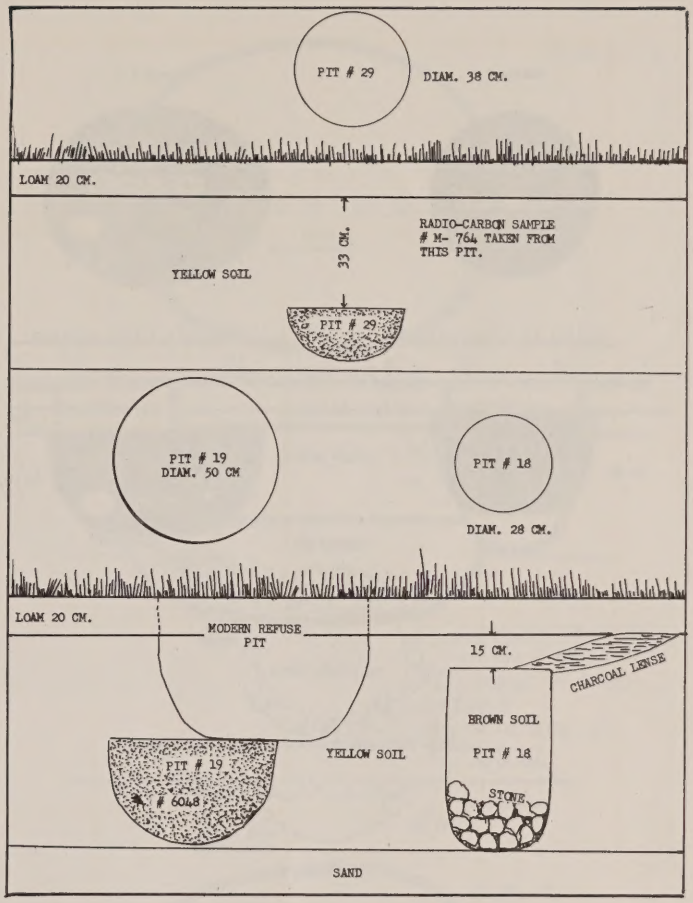


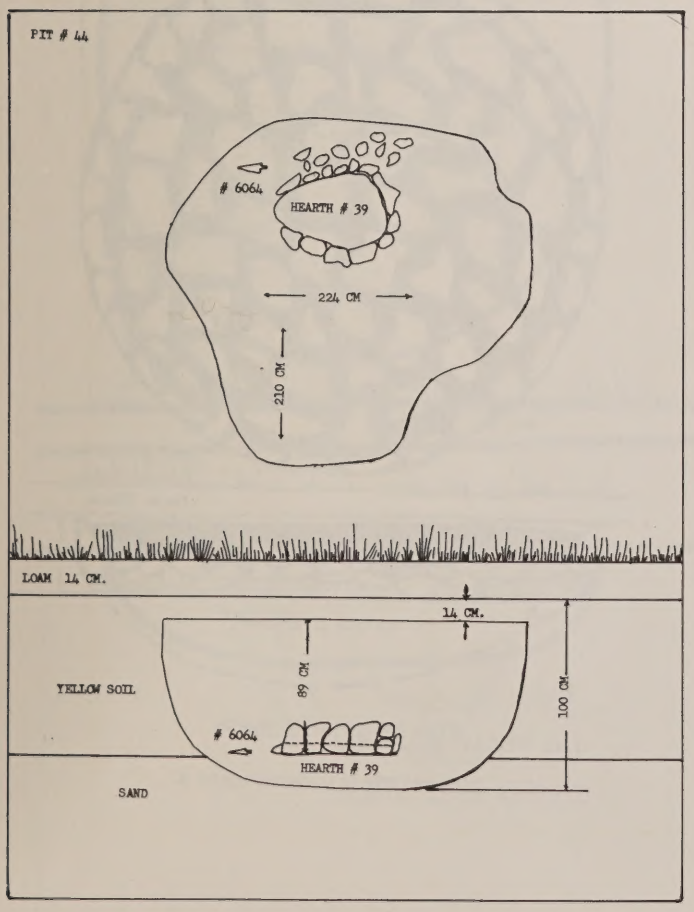
OUTLINE

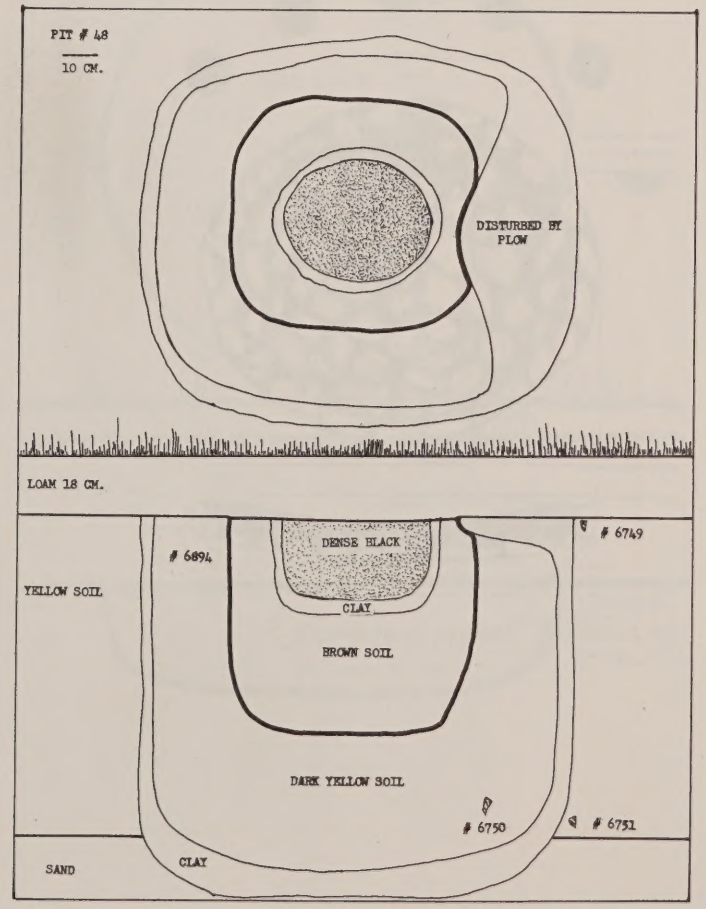


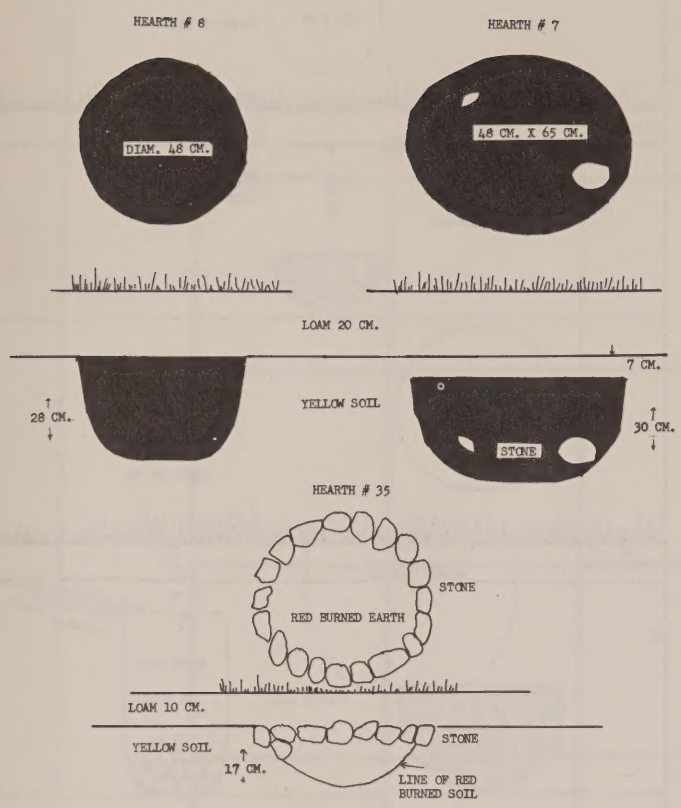
VERTICAL DATA

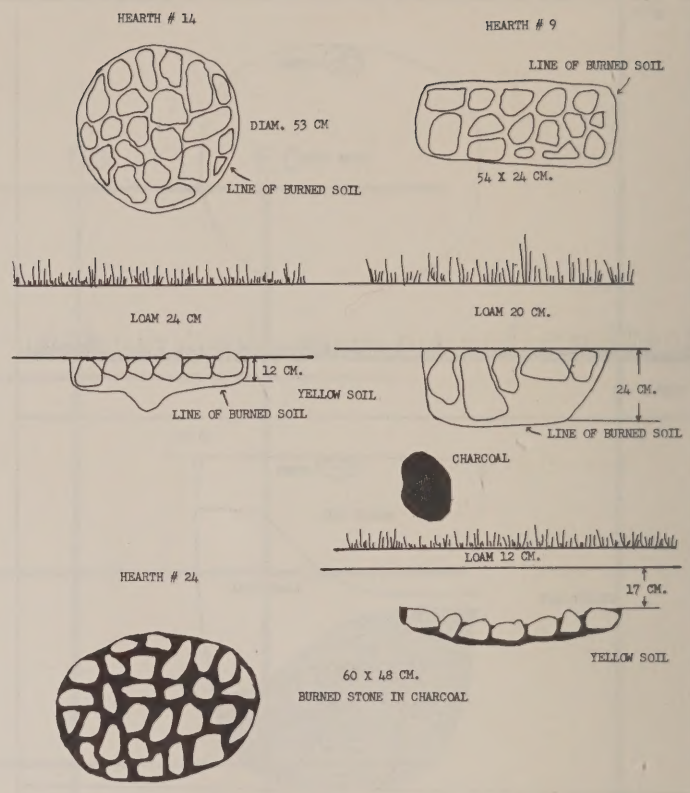

PIT # 6
10 CM.
STONE
BROWN SOIL
LOAM 17 CM.
10 CM.
STONE
BROWN SOIL
BLACK SOIL
YELLOW SOIL
CHARCOAL
SAND

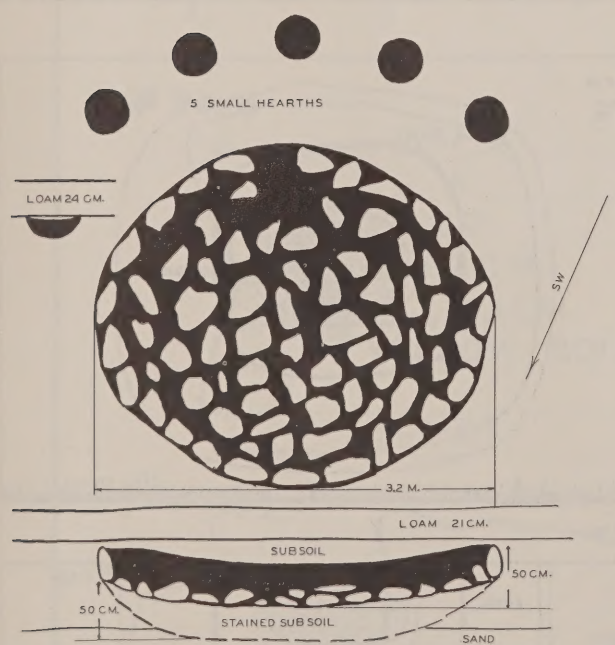

PIT # 29
DIAM. 38 CM.
LOAM 20 CM.
33 CM.
RADIO-CARBON SAMPLE
M- 764 TAKEN FROM
THIS PIT.
YELLOW SOIL
PIT # 29
PIT # 19
DIAM. 50 CM
PIT # 18
DIAM. 28 CM.
LOAM 20 CM.
MODERN REFUSE
PIT
15 CM.
CHARCOAL LENSE
BROWN SOIL
PIT # 18
YELLOW SOIL
PIT # 19
6048
STONE
SAND


PIT # 44
6064
HEARTH # 39
224 CM
210 CM
LOAM 14 CM.
14 CM.
89 CM
100 CM
YELLOW SOIL
6064
HEARTH # 39
SAND

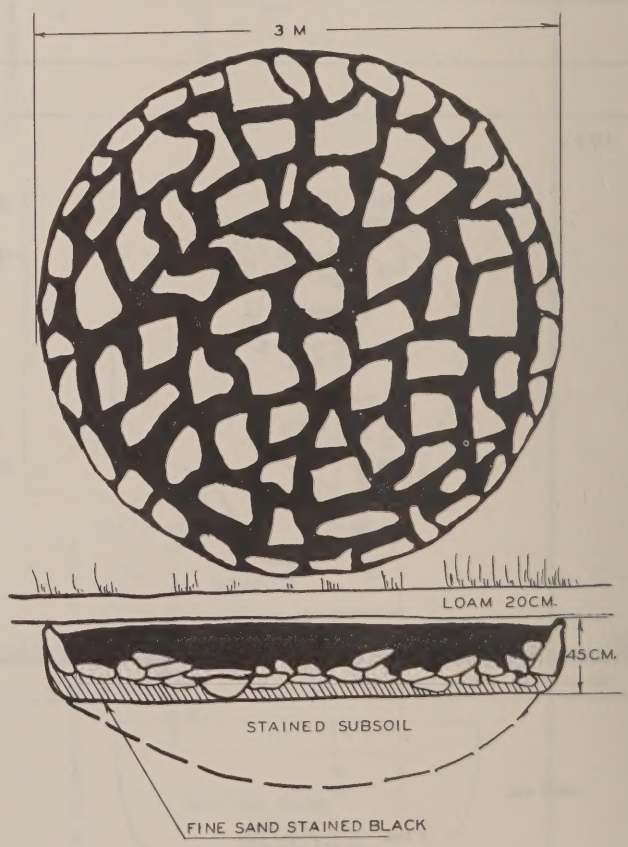

PIT # 48
10 CM.
DISTURBED BY
PLOW
LOAM 18 CM.
6894
DENSE BLACK
6749
YELLOW SOIL
CLAY
BROWN SOIL
DARK YELLOW SOIL
6750
6751
SAND
CLAY



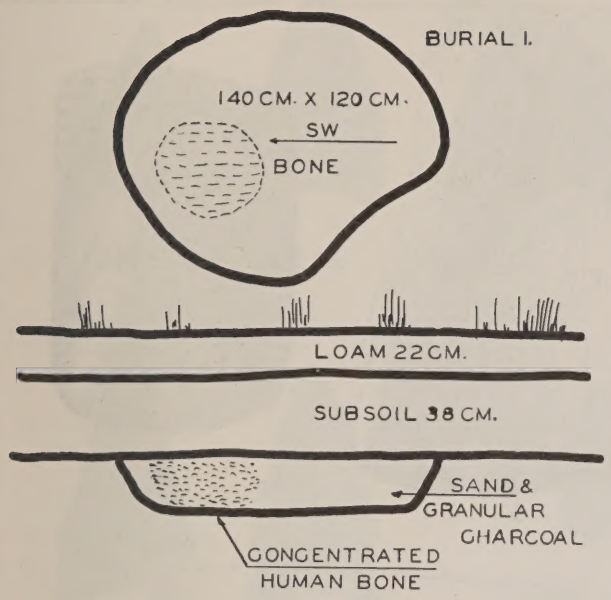


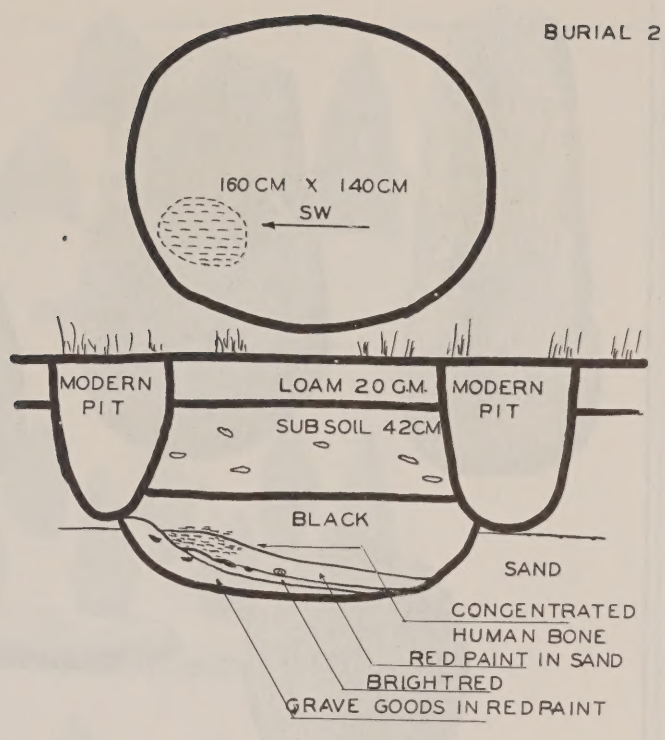


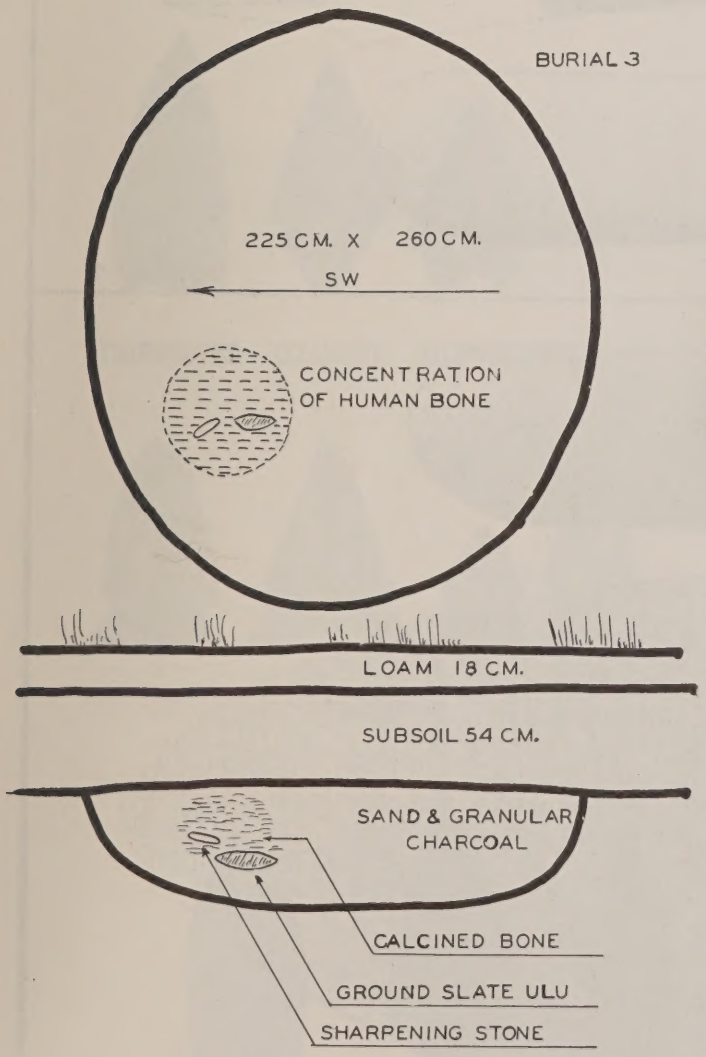
CREMATION PIT WAPANUCKET 2

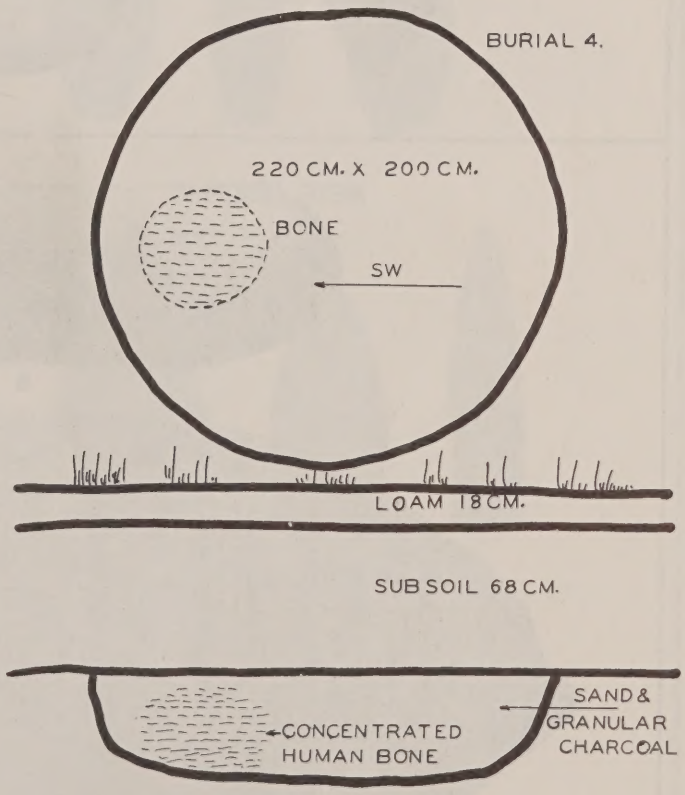


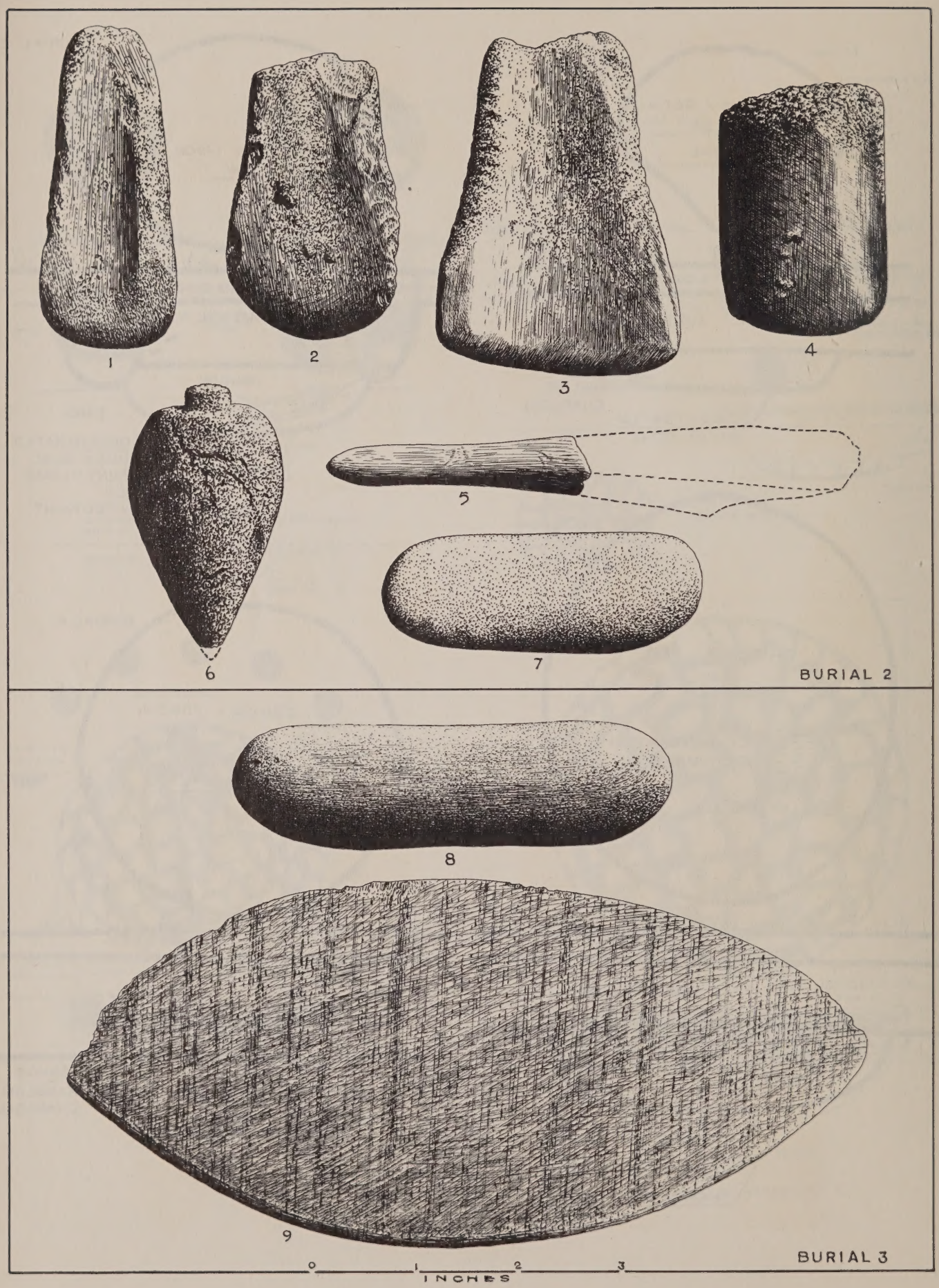
CREMATORY PIT WAPANUCKET 5.


BURIAL I.
140 CM. X 120 CM.
SW
BONE
LOAM 22 CM.
SUBSOIL 38 CM.
SAND & GRANULAR CHARCOAL
CONCENTRATED HUMAN BONE

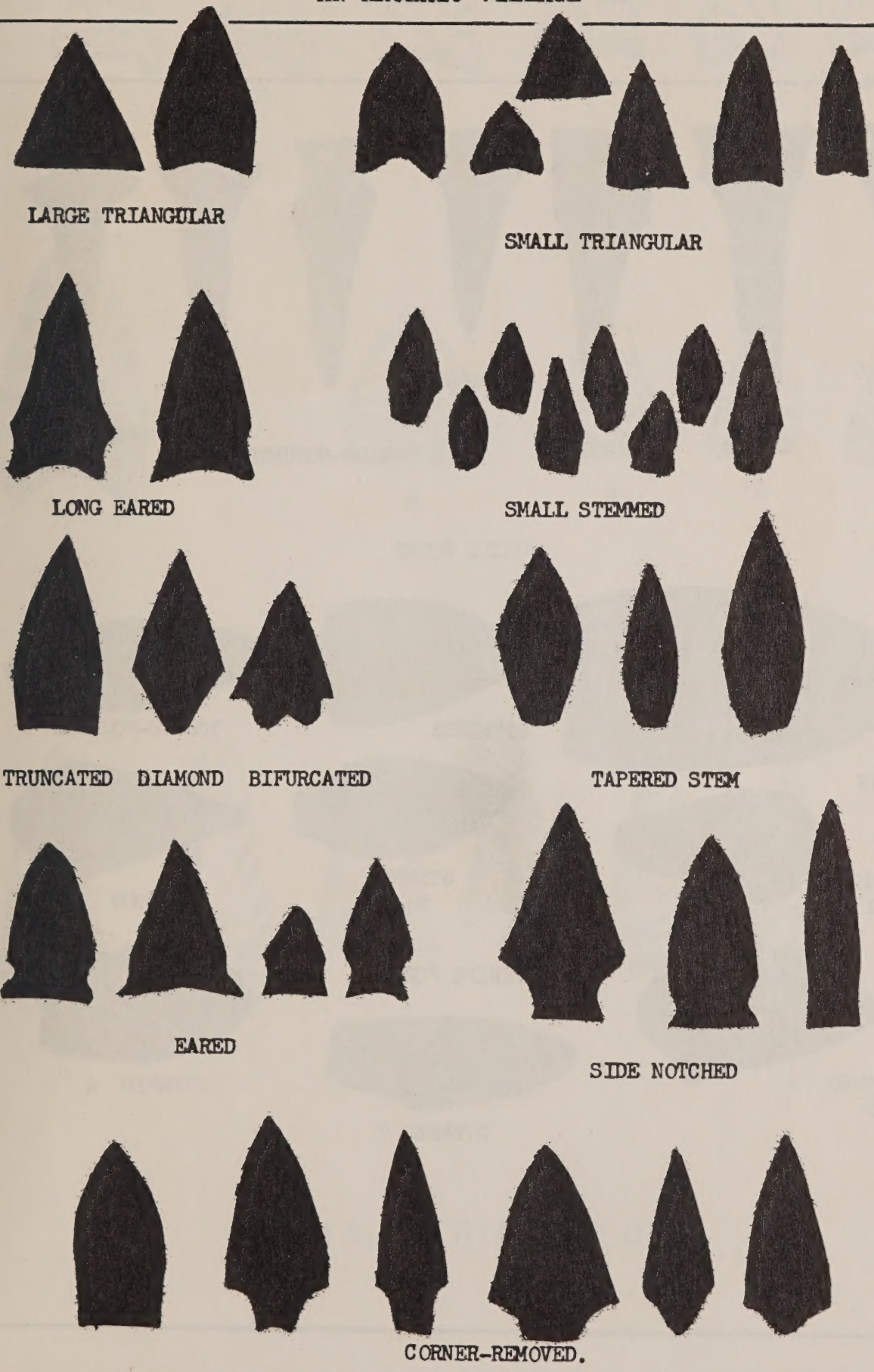

BURIAL 2
160 CM X 140 CM
SW
MODERN PIT
LOAM 20 CM.
MODERN PIT
SUBSOIL 42 CM
BLACK
SAND
CONCENTRATED HUMAN BONE
RED PAINT IN SAND
BRIGHT RED
GRAVE GOODS IN RED PAINT

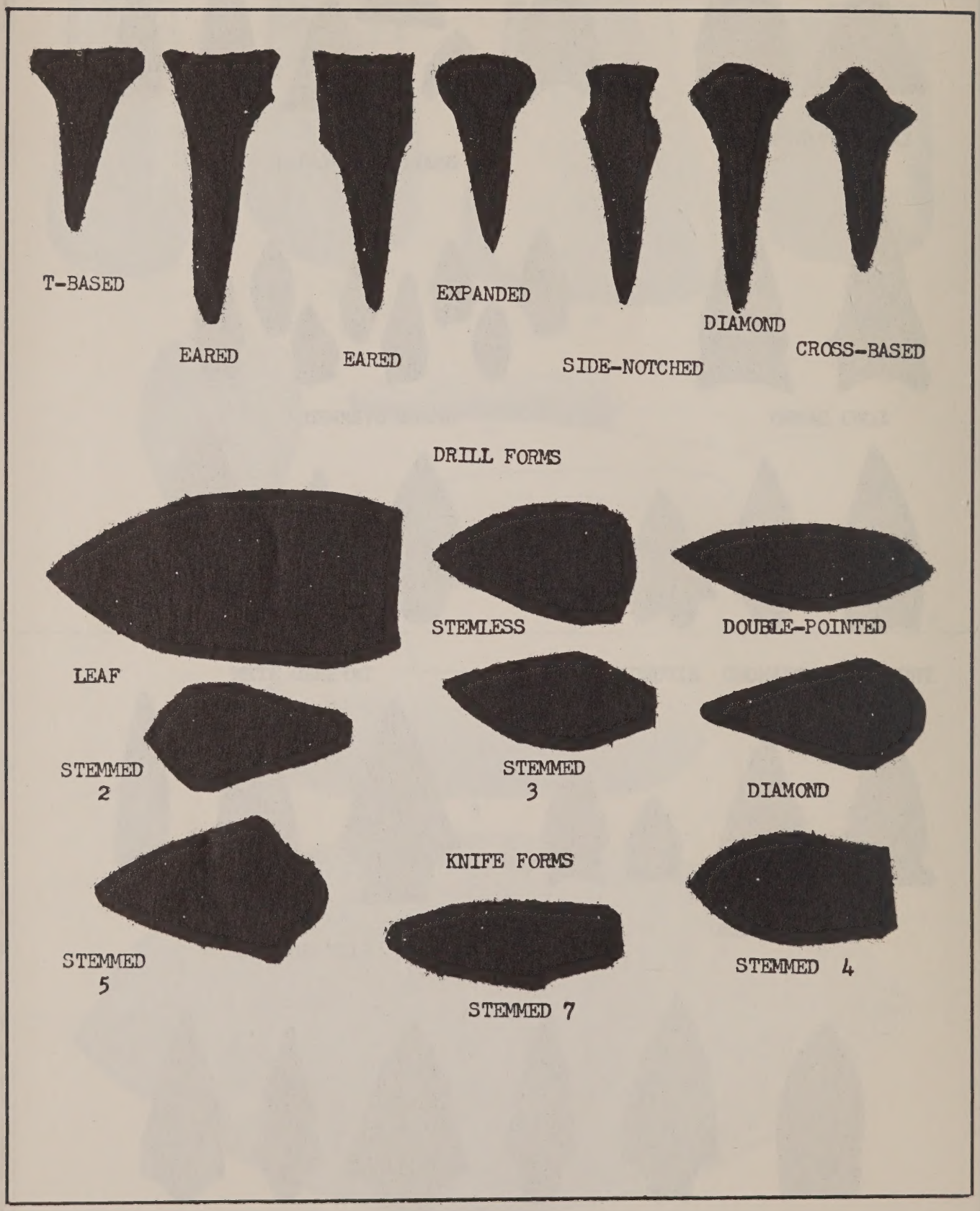

BURIAL 3
225 CM. X 260 CM.
SW
CONCENTRATION OF HUMAN BONE
LOAM 18 CM.
SUBSOIL 54 CM.
SAND & GRANULAR CHARCOAL
CALCINED BONE
GROUND SLATE ULU
SHARPENING STONE


BURIAL 4.
220 CM. X 200 CM.
BONE
SW
LOAM 18 CM.
SUBSOIL 68 CM.
CONCENTRATED HUMAN BONE
SAND & GRANULAR CHARCOAL


1
2
3
4
5
6
7
BURIAL 2
8
9
BURIAL 3
0
1
2
3
INCHES

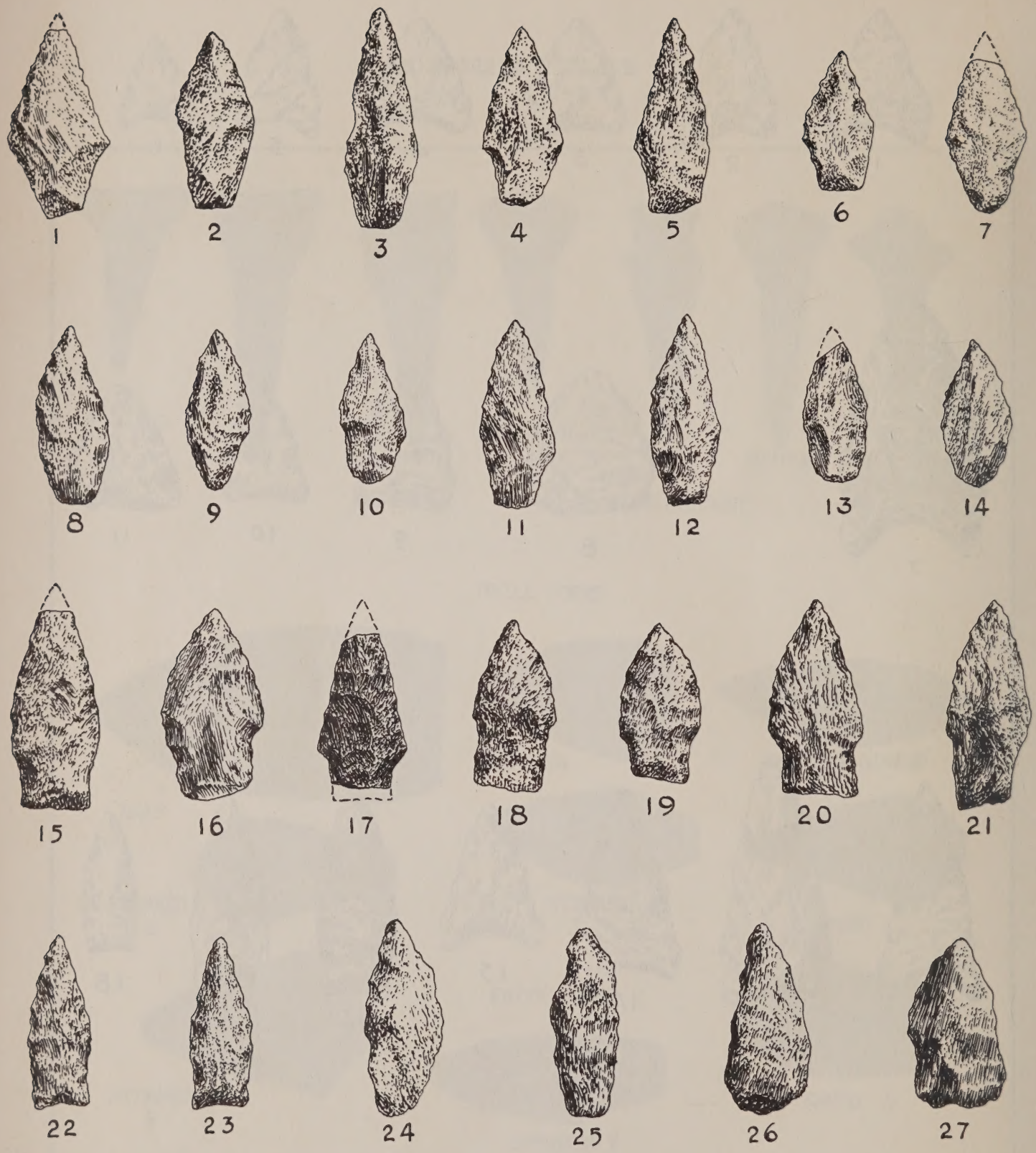
AN ARCHAIC VILLAGE




T-BASED
EARED
EARED
EXPANDED
SIDE-NOTCHED
DIAMOND
CROSS-BASED
DRILL FORMS
LEAF
STEMLESS
DOUBLE-POINTED
STEMMED 2
STEMMED 3
DIAMOND
KNIFE FORMS
STEMMED 5
STEMMED 7
STEMMED 4

SMALL TRIANGULAR

0 1 2
INCHES



SMALL STEM

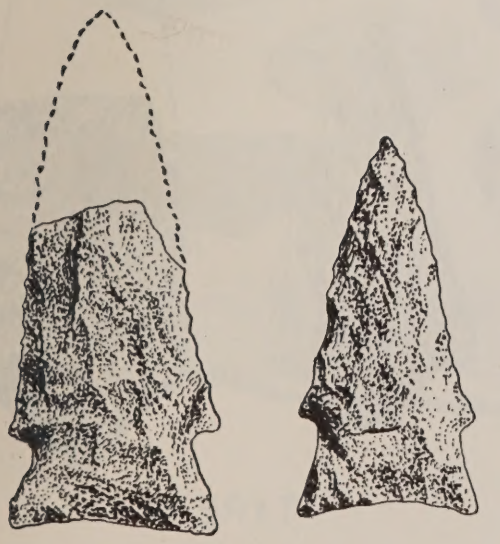
0 1 2
INCHES

TRUNCATED

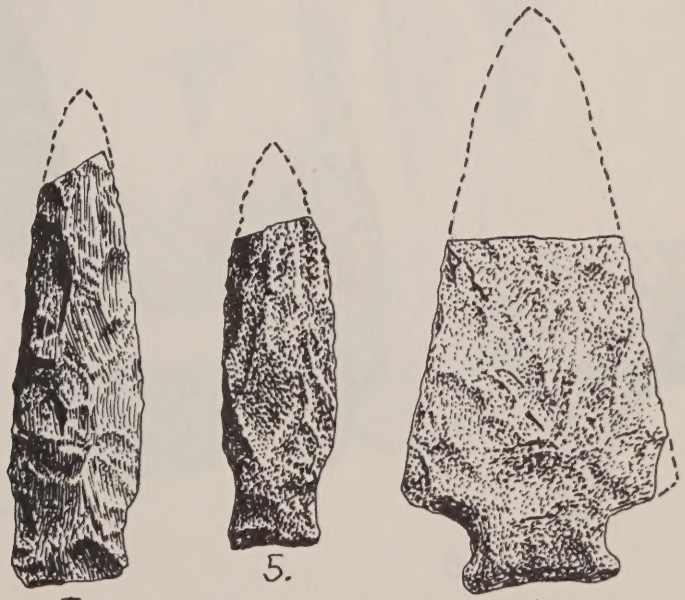
TAPERED-STEM

DIAMOND

EARED



LONG EARED

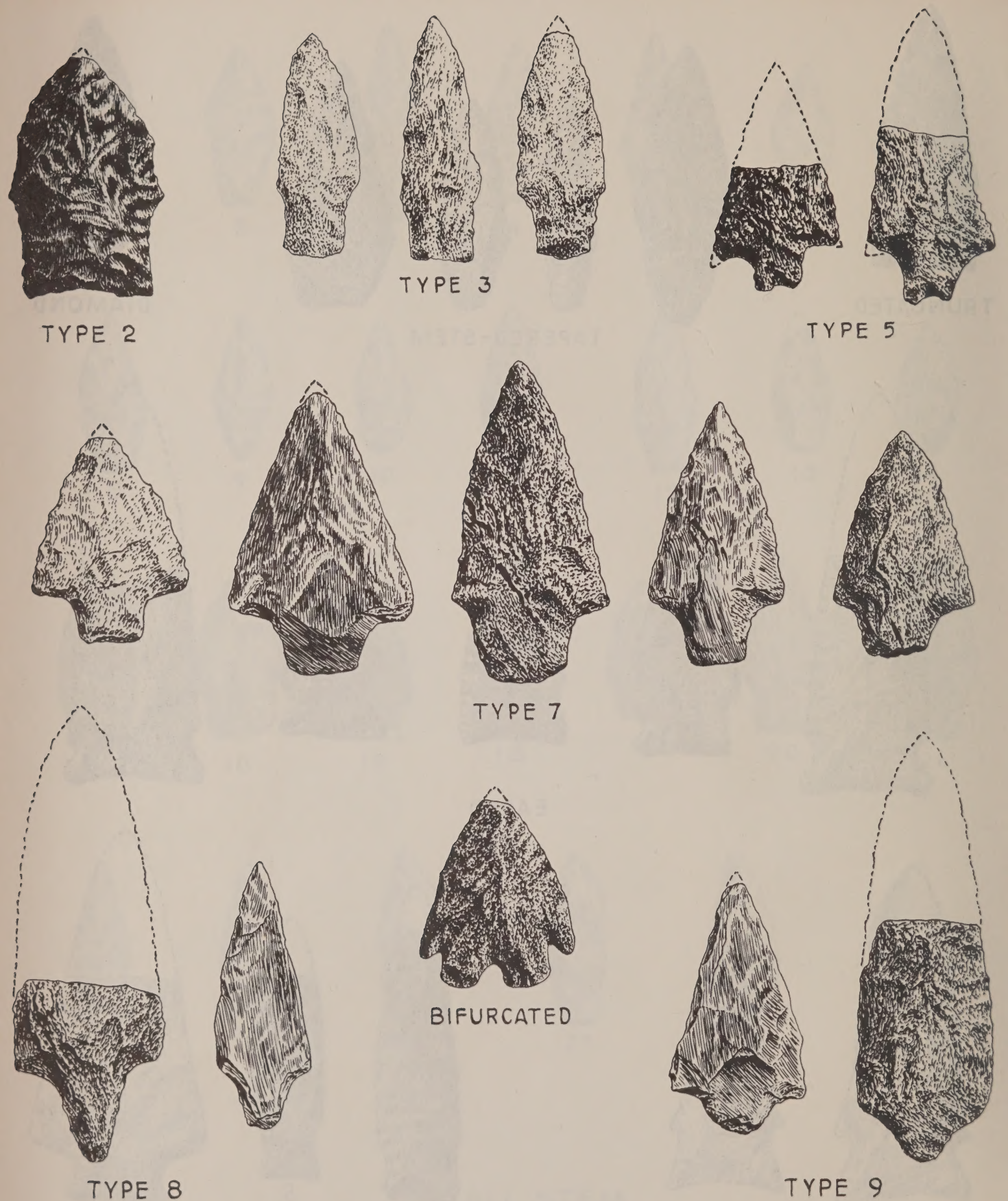


3. 5. 1.

SIDE-NOTCHED

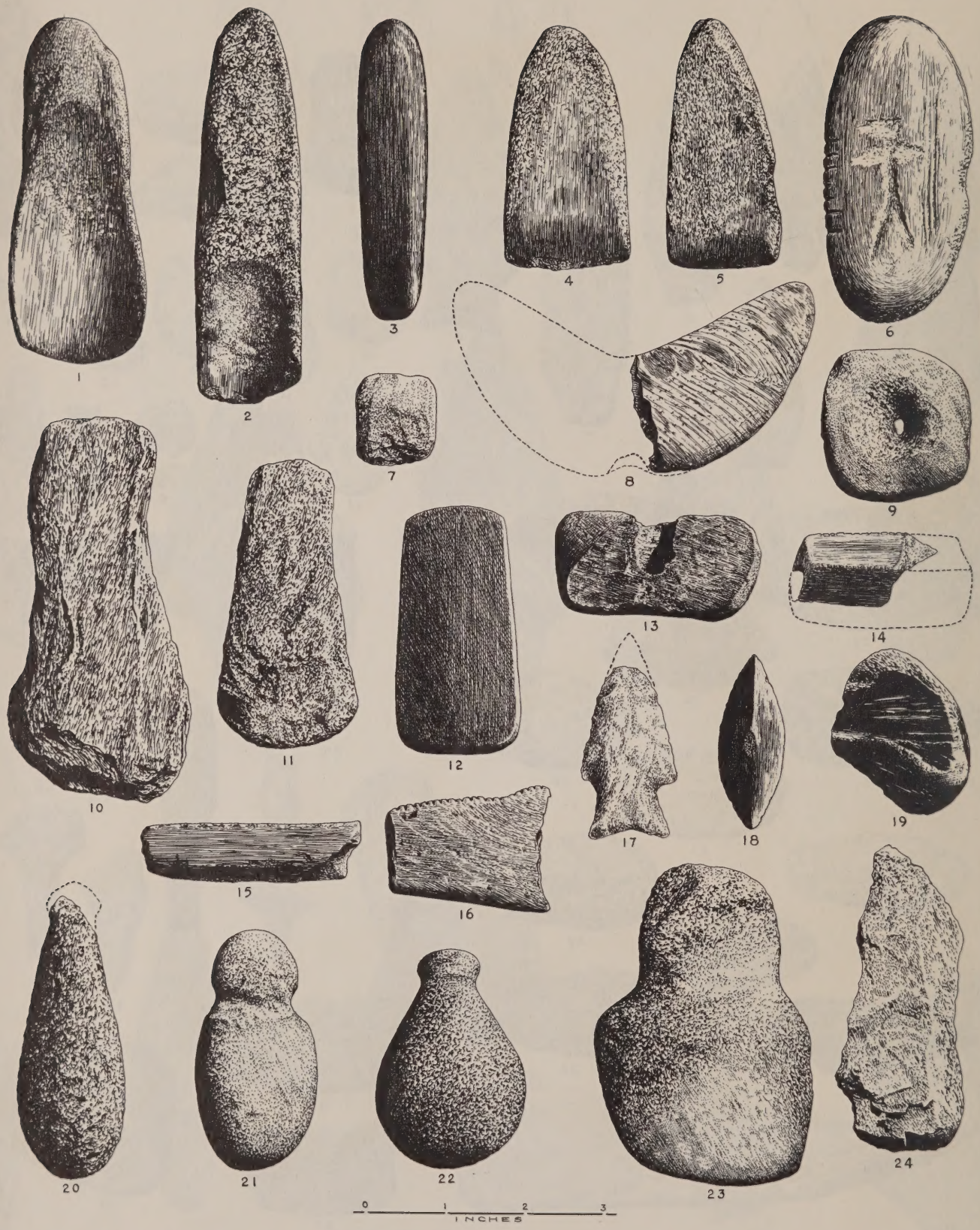
0 1 2

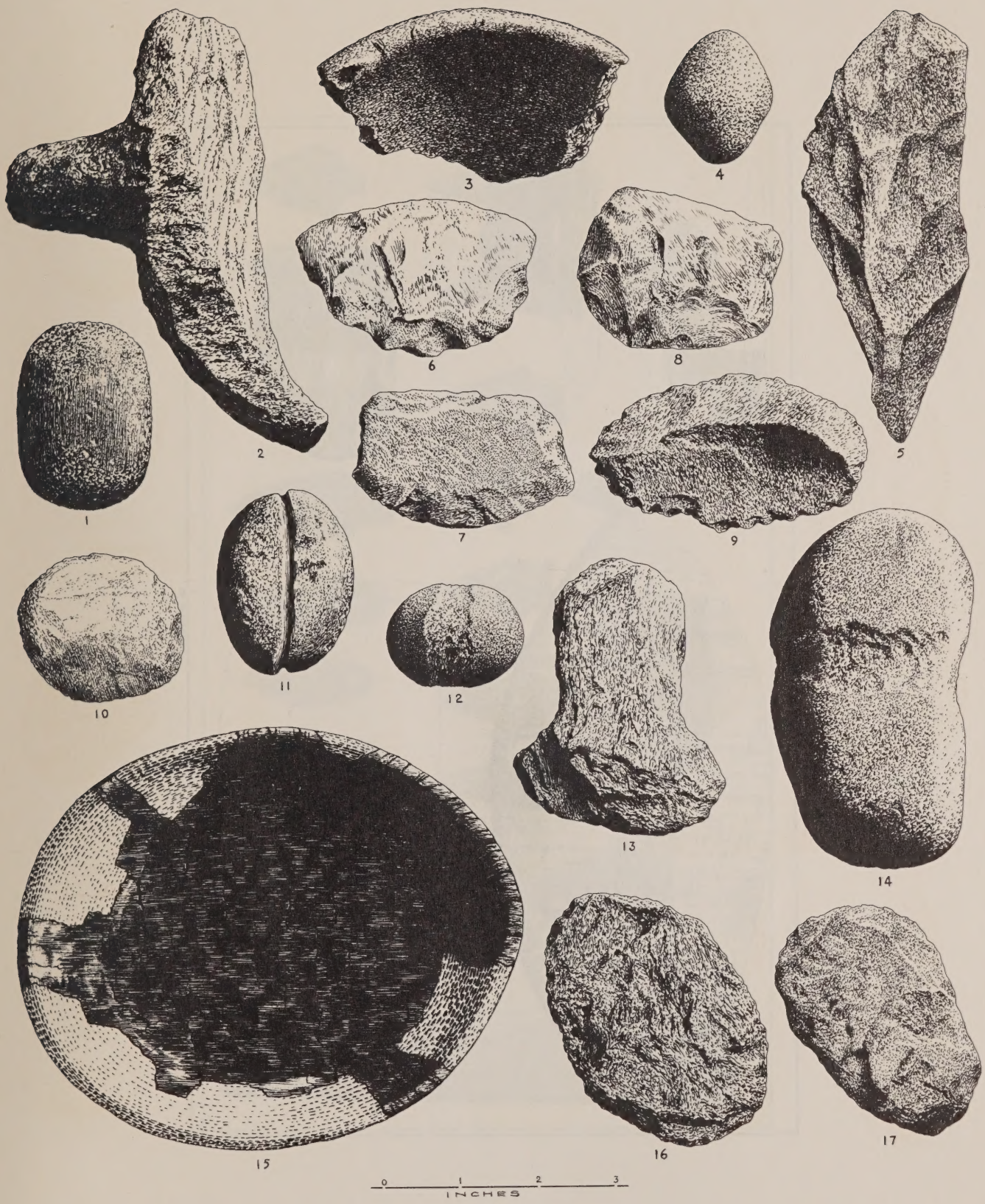
INCHES

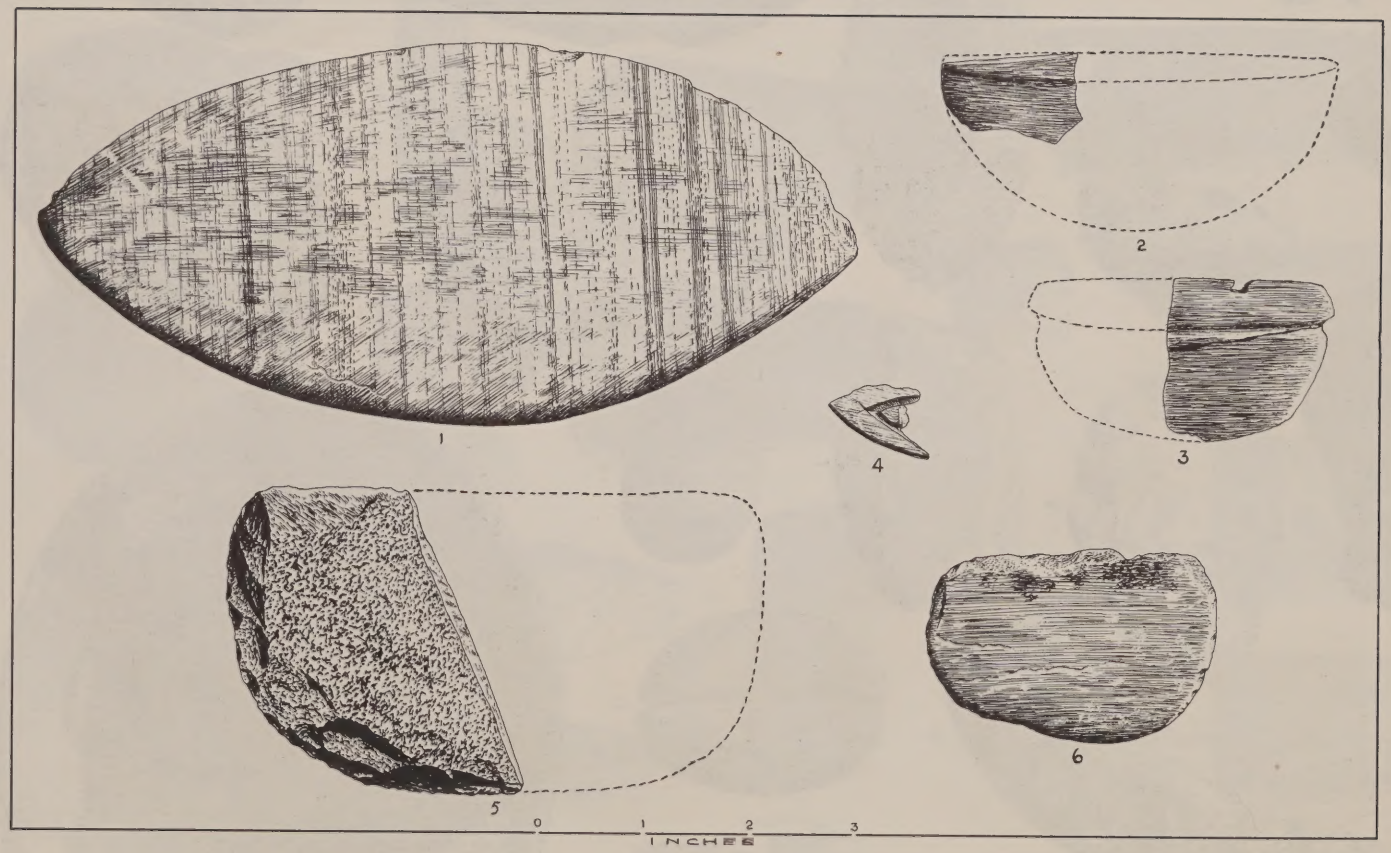


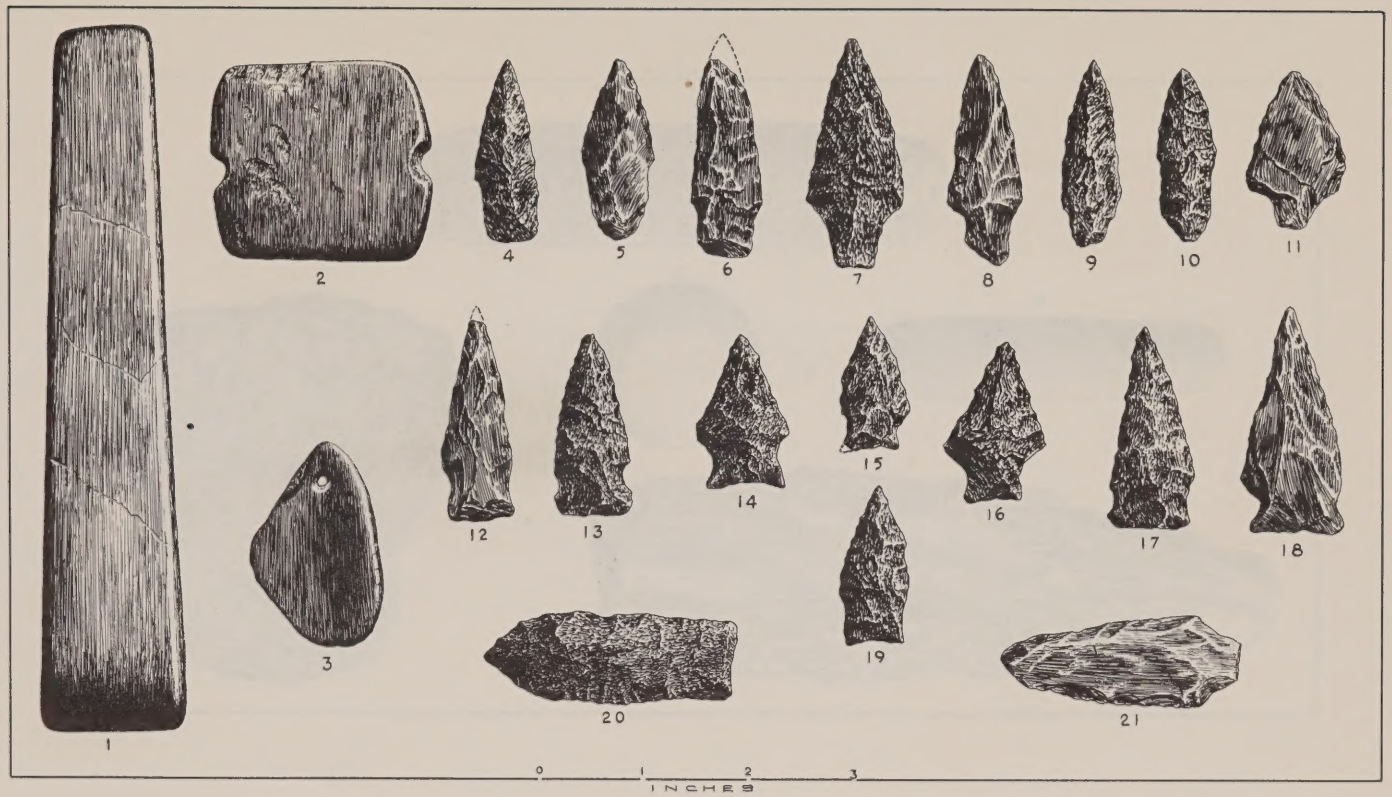
CORNER-REMOVED AND BIFURCATED

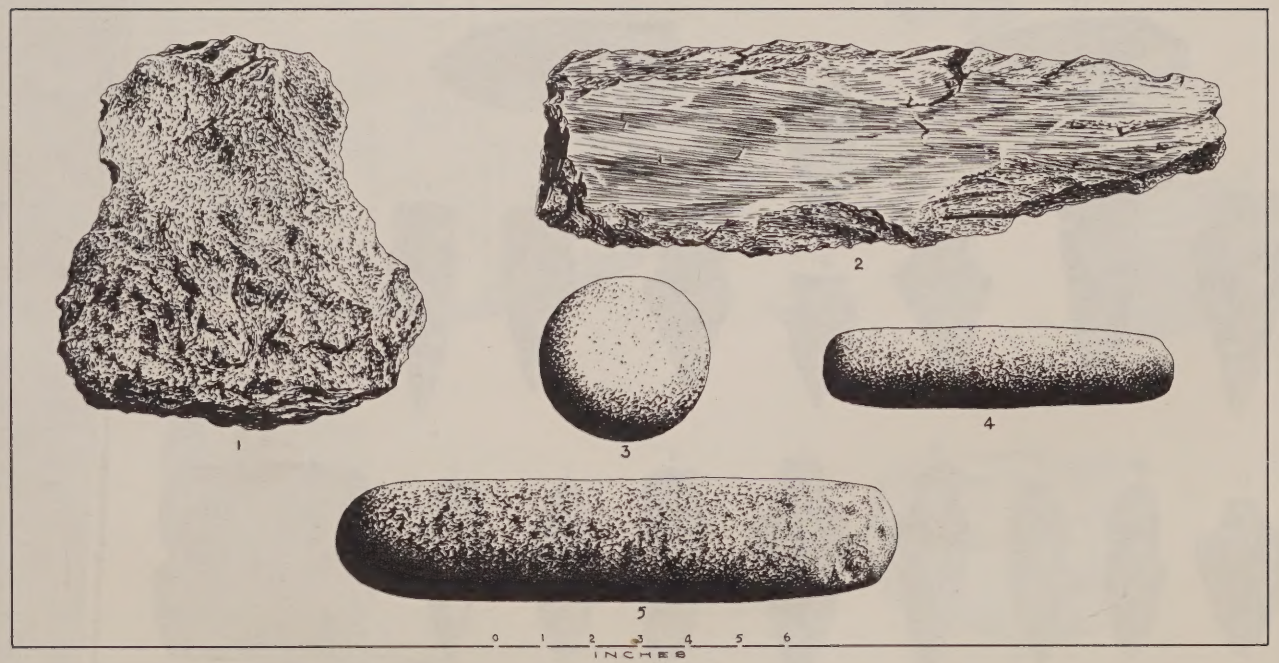
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
0 1 2 3
INCHES


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
0
1
2
3
INCHES


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
0 1 2 3
INCHES


1
2
3
4
5
6
0
1
2
3
INCHES


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
0
1
2
3
INCHES


1
2
3
4
5
0 1 2 3 4 5 6
INCHES